

BEFORE THE DELAWARE PUBLIC SERVICE COMMISSION

IN RE: IN THE MATTER OF THE APPLICATION)
OF DELAWARE DIVISION OF CHESAPEAKE)
UTILITIES CORPORATION FOR A GENERAL) PSC DOCKET NO. 07-
INCREASE IN NATURAL GAS RATES AND CHARGES)
THROUGHOUT DELAWARE AND FOR APPROVAL OF)
OTHER CHANGES TO ITS TARIFF)

DIRECT TESTIMONY OF JEFF HOUSEHOLDER

On Behalf of Chesapeake Utilities Corporation
Delaware Division

Submitted for filing: July 6, 2007

1 Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.

2 A. My name is Jeff Householder. I am President of Jeff Householder and Company,
3 Inc., an energy and regulatory affairs consulting firm. My business address is
4 2333 West 33rd Street, Panama City, Florida, 32405.

5 Q. PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE AND
6 EDUCATIONAL BACKGROUND.

7 A. Over the past seven years, I have provided energy consulting, regulatory affairs
8 and business development services primarily to natural gas utilities, natural gas
9 marketing companies, propane gas retailers, government agencies and industrial
10 and commercial clients. I have participated in numerous regulatory filings before
11 the Florida Public Service Commission, including several rate proceedings. Prior
12 to beginning my consulting business in January 2000, I was Vice President of
13 Marketing and Sales for TECO Peoples Gas from 1997 to 2000. While with
14 TECO, I was also responsible for the management of TECO Gas Services, an
15 unregulated energy marketing company. I joined Peoples Gas subsequent to the
16 1997 TECO Energy acquisition of West Florida Natural Gas Company. At West
17 Florida Natural Gas, I served as Vice President of Regulatory Affairs and Gas
18 Management from 1995 to the TECO merger. Before that, I was Vice President
19 of Marketing and Sales at City Gas Company, a division of the NUI Corporation.
20 Prior to joining City Gas, I was employed as Utility Administrative Officer for the
21 City of Tallahassee, (an electric, gas, water and waste water utility). During my
22 ten years with the City's utility operations, I also managed the Energy Services
23 Department, a marketing and demand-side management unit. In each of the

1 above listed utility positions, I had either direct responsibility for or substantive
2 input into the rates and regulations under which the utility operated, including
3 development of each utility's embedded cost studies and rate designs. From
4 1981 to 1984, I was a Section Manager with the Florida Department of
5 Community Affairs, responsible for administering the Florida Energy Code and
6 related construction industry regulatory standards. I also served, early in my
7 career, as an Energy Analyst in the Governor's Energy Office in the state of
8 Florida. From 1984 to 1995, concurrent with my other positions, I provided part-
9 time consulting services to the natural gas, propane gas and homebuilding
10 industries involving a variety of building code, marketing and energy regulatory
11 matters. I received a Bachelor of Science Degree in 1978 from the Florida State
12 University with an interdisciplinary major in Social Science (Economics and
13 Business), and additional majors in Government and International Relations.

14 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

15 A. My testimony will outline the Company's proposal to provide an unbundled
16 transportation service option to all non-residential commercial customers. I will
17 also sponsor the Company's proposed permanent rate design and the
18 restructuring of its current rate classes. In support of my rate design testimony, I
19 assisted the Company in the preparation of a cost of service study by customer
20 class for the Test Period ended March 31, 2007. My testimony provides an
21 overview of the methodological process used to prepare the cost of service study
22 and design the proposed rates. In addition, my testimony includes a discussion of
23 the Company's proposal to decouple its recovery of costs from certain rate

1 classes from the variable quantities of gas consumed by consumers in those rate
2 classes, through the adoption of a Revenue Normalization Mechanism (RNM).
3 The Company is also proposing a comprehensive Energy Conservation Program
4 linked to its proposed RNM. My testimony outlines the proposed conservation
5 programs and a mechanism to recover conservation related costs. Finally, my
6 testimony provides an overview of the significant modifications proposed to the
7 Company's tariff.

8 **Q. ARE YOU SPONSORING ANY ATTACHMENTS TO YOUR TESTIMONY?**

9 A. Yes. Attachments JMH-1 through JMH-6 is a composite attachment including
10 each of the cost of service studies produced for this filing, as described in detail
11 later in my testimony. Attachment JMH-7 includes two summary reports from the
12 Company's cost of service model that identify the Test Period rates of return by
13 proposed rate class under (i) current revenues and (ii) the Company's proposed
14 target revenues by class generated by the proposed rates. Attachment JMH-8 is
15 a composite attachment with several charts depicting an analysis of the
16 competitive position of the Company's proposed rates compared to various
17 alternative fuels available in the Company's service areas. Attachment JMH-9 is
18 a table comparing the Company's proposed customer classifications and rates to
19 current rates. In addition, the Company is filing a proposed tariff along with a red-
20 line tariff indicating revisions matrix referencing the relocation of existing tariff
21 language to the new proposed tariff which I will be referencing. The referenced
22 attachments were prepared with my consultation or under my direction,
23 supervision and control.

Aggregated Transportation Service Proposal

**Q. PLEASE DESCRIBE THE COMPANY'S CURRENT UNBUNDLED
TRANSPORTATION SERVICE PROGRAM.**

A. The Company currently offers transportation service to any commercial or industrial consumer whose gas use is 30,000 Ccf per year or greater. Transportation service is offered on a firm or interruptible basis. Interruptible transportation consumers must meet certain alternate fuel capability requirements. Under the Company's current tariff structure, consumers electing transportation service continue to receive Delivery Service of consumer-owned gas under the consumer's applicable rate schedule (LVS, HLFS, ITS). A separate Transportation and Balancing Service rate schedule provides the fundamental rules and procedures by which the Company provides transportation service.

Under the current tariff, all transportation service is provided by the Company on an individual consumer basis. Any consumer may retain a Customer Agent to perform certain gas transportation functions on the consumer's behalf (provide gas supply, arrange for transportation on the interstate pipelines, etc.). While the company works closely with the Customer Agents retained by a consumer, at present the "customer" relationship and principal transactions (capacity release, imbalance resolution and billing) are between the Company and the consumer. Each consumer purchases commodity gas supply from a supplier. The supplier generally arranges the transportation of such gas across the interstate pipeline system to the Company's City Gates. The

1 Company has historically released a portion of its pipeline capacity rights on the
2 Eastern Shore Natural Gas Pipeline (ESNG) to consumers to facilitate delivery of
3 consumer-owned gas to the distribution system. The Company has not released
4 pipeline capacity upstream of ESNG (Transco or Columbia) to consumers. The
5 consumer (usually through its gas supplier Agent) has historically been
6 responsible for arranging the delivery of its gas into the ESNG pipeline for
7 delivery to the distribution system.

8 The Company establishes a monthly Daily Contract Quantity (DCQ) for
9 each consumer, and the consumer (through its Agent) is obligated to deliver the
10 DCQ each day during the applicable month. Penalties of \$30.00 per Dt for any
11 difference between the DCQ and actual deliveries may be levied under the
12 current tariff. Nominations for gas deliveries to the distribution system are
13 required for first of the month and any intra-month scheduled deliveries. The
14 Company provides a Firm and Interruptible Balancing Service. A portion of the
15 Company's storage rights are used to support daily balancing requirements on
16 the upstream interstate pipeline to the benefit of all consumers, including
17 transportation consumers. The Company charges a tariff approved balancing fee
18 for this service. Any monthly imbalances between gas quantities delivered to the
19 Company's distribution system for a consumer and actual consumption are
20 cashed-out at the Company's weighted average City Gate flowing gas cost for
21 the month.

22 At the end of 2005, the Delaware Division served ten (10) consumers
23 under its Transportation and Balancing Service rate schedule. At the end of

1 2006, the number of transporting consumers had more than doubled to twenty-
2 three (23) consumers. Of this number two (2) were transporting under the
3 Company's Interruptible Service (IS) rate schedule, and the remaining
4 consumers were receiving firm transportation service.

5 **Q. HOW IS THE COMPANY PROPOSING TO MODIFY ITS CURRENT**
6 **TRANSPORTATION SERVICE PROGRAM?**

7 A. As indicated in Jeffrey Tietbohl's testimony, the Company is proposing to
8 implement an Aggregated Transportation Service (ATS) Program for all
9 transporting consumers. The proposed program would aggregate or group
10 consumers electing transportation service into pools. Each pool of transporting
11 consumers would be administered by a third party gas marketer who would
12 provide gas supply, Transporter capacity and other services to consumers
13 through commercial agreements between the marketer and the consumer. In the
14 Company's proposed tariff the marketer managing a pool is designated an ATS
15 Shipper and the consumers served by an ATS Shipper are designated an ATS
16 Consumer Pool. The formation of an ATS Consumer Pool would require an
17 aggregate annual gas quantity no less than 50,000 Ccf, with no minimum number
18 of consumers in the Consumer Pool. An ATS Shipper could manage a Consumer
19 Pool of one consumer using over 50,000 Ccf per year, or multiple consumers
20 using an aggregate annual volume in excess of 50,000 Ccf. Each ATS Shipper
21 would be required to be a shipper on the upstream Transporter pipeline(s), or
22 have the ability through an agent to ship on such Transporter pipeline(s),
23 delivering gas to the Company's distribution system and meet the Company's

1 creditworthiness standards. The Company proposes no limit on the number of
2 ATS Shippers other than the minimum annual Ccf limits required to establish a
3 Consumer Pool.

4 An Aggregated Transportation Service Agreement would be executed
5 between the Company and all ATS Shippers, requiring the ATS Shipper to
6 adhere to the rules and regulations for transportation service as detailed in
7 Section 19 of the Company's proposed tariff. Consumers would be required to
8 provide a Letter of Authorization (LOA) to the Company electing service under
9 the Aggregated Transportation Service Program and designating their ATS
10 Shipper selection. Notwithstanding a consumer's contractual relationship with its
11 ATS Shipper, consumers would be able to change their ATS Shipper selection
12 upon a thirty-day notice to the Company prior to the first day of the month in
13 which the change would be effective. Consumers would also be able to return to
14 General Sales Service at any time with a similar thirty-day notice. The Company
15 is proposing to allow one change of ATS Shipper or one change of rate class
16 (sales service to transportation service) without charge to the consumer within a
17 rolling twelve-month period. Additional changes would be permitted upon
18 payment of a fifty dollar (\$50.00) administrative processing charge for each
19 change.

20 **Q. WHY IS THE COMPANY PROPOSING TO AGGREGATE CONSUMERS INTO**
21 **POOLS RATHER THAN CONTINUING TO PROVIDE TRANSPORTATION**
22 **SERVICE TO EACH CONSUMER ON AN INDIVIDUAL BASIS?**

1 A. Aggregating consumers and their consumption quantities into Consumer Pools
2 will simplify the Company's administrative requirements and reduce the overall
3 cost of providing transportation service. In an aggregated service program, the
4 LDC administers the total gas quantities delivered to the Consumer Pools
5 through each ATS Shipper rather than administering each consumer's individual
6 gas quantities. The various administrative processes required to support
7 transportation service, e.g. Transporter capacity release, nominations, imbalance
8 resolution, operational orders, etc., can be handled for the Consumer Pool rather
9 than each individual consumer. The Company is also proposing that the
10 transactions related to such activities be conducted between the Company and
11 the ATS Shippers, not the consumer. For example, the Transporter capacity
12 release in a quantity equal to the aggregate Consumer Pool requirements as
13 defined in the proposed tariff would be provided to the ATS Shipper. The
14 responsibility for paying for the transporter capacity would be the ATS Shipper's.
15 The recovery of such cost from the Consumer Pool would be between the ATS
16 Shipper and its customers. Administering transporting consumers in aggregated
17 Consumer Pools allows the Company to provide open access to its distribution
18 system without incurring burdensome administrative costs. The proposed ATS
19 program gives all small volume non-residential consumers an opportunity to
20 participate in transportation service, and eliminates the overly restrictive nature of
21 the current limited access program.

22 **Q. WILL THE AGGREGATED TRANSPORTATION SERVICE PROGRAM**
23 **ENABLE CONSUMERS TO AGGREGATE ANNUAL GAS QUANTITIES AT**

1 **MULTIPLE LOCATIONS TO ESTABLISH ELIGIBILITY FOR A LARGER**
2 **VOLUME RATE CLASS?**

3 A. No. The aggregation of gas quantities is solely for the purposes of transportation
4 service administration. Consumers can aggregate their multiple location gas
5 quantities into an ATS Consumer Pool, however, under the Company's proposed
6 rate design the base rate applicable to a customer's volumetric class of service
7 does not change when the customer elects aggregated transportation service.
8 Each consumer premise will continue to be recognized by the Company as a
9 separate entity for billing the Company's tariff charges (Customer Charge, Gas
10 Delivery Charge, Demand Charge, as applicable) for the transportation of gas on
11 the distribution system. The Company's transportation rates for individual
12 customers are based on individual premise volumes, not the aggregated volumes
13 of multiple consumer locations or the aggregated volumes of a Consumer Pool.

14 **Q. YOU INDICATED THAT SECTION 19 OF THE COMPANY'S PROPOSED**
15 **TARIFF INCLUDES THE RULES AND REGULATIONS RELATED TO**
16 **TRANSPORTATION SERVICE. PLEASE PROVIDE AN OVERVIEW OF THE**
17 **PROPOSED TARIFF PROVISIONS.**

18 A. The Company's existing tariff includes a Transportation and Balancing Service
19 rate schedule which provides the existing rules and regulations for transportation
20 service. In the proposed Version 5 of the tariff, the Company would move the
21 provisions for transportation service into Section 19 of the Rules and Regulations
22 and eliminate the current Transportation and Balancing Service rate schedule.
23 Section 19 of the proposed tariff includes three sub-sections: General Terms and

1 Conditions; Consumer Terms and Conditions and ATS Shipper Terms and
2 Conditions. The General Terms and Conditions subsection provides definitions of
3 pertinent terms, the intent of the aggregated program and general operating rules
4 of interest to both ATS Shippers and consumers. The Consumer subsection
5 describes the requirements for election of transportation service, the selection of
6 an ATS Shipper, and procedures related to termination of transportation service,
7 changing ATS Shippers and other consumer administrative procedures. The ATS
8 Shippers subsection focuses on the rules and regulations governing the
9 Company's relationship with the shippers.

10 **Q. PLEASE DESCRIBE THE MOST SIGNIFICANT ATS SHIPPER RULES,**
11 **REGULATIONS OR OPERATING PROCEDURES INCLUDED IN THE**
12 **PROPOSED TARIFF.**

13 A. The most significant of the provisions included in the proposed tariff relate to
14 interstate pipeline capacity release, nomination procedures, resolution of
15 imbalances, Daily Balancing Service, Seasonal Swing Service, operational
16 controls and the creation of an Operational Balancing Account.

17 **Q. HOW WILL THE COMPANY ALLOCATE ITS INTERSTATE PIPELINE**
18 **CAPACITY TO ATS SHIPPERS?**

19 A. The Company, through its Transporter Service Agreements, has contracted for
20 long-term firm capacity rights and storage capacity rights on multiple Transporter
21 interstate pipeline systems. The Company proposes to assign and/or allocate, in
22 a nondiscriminatory manner, the embedded costs of its Transporter capacity in
23 accordance with the methodology provided below. To facilitate a Consumer's

1 ability to choose transportation as its service option and to the extent Transporter
2 capacity is available, the Company would release a portion of such Transporter
3 capacity to a Consumer's ATS Shipper, on ESNG and those Transporters
4 upstream of ESNG (Transco, Columbia and Columbia Gulf) on a temporary
5 basis. The Company would not propose, at this time, to relinquish any of its
6 storage capacity rights to ATS Shippers. The release of Transporter capacity
7 from the Company to the ATS Shippers provides two benefits: (i) given that
8 Transporter capacity is difficult to obtain on pipelines upstream of ESNG, the
9 release of the Company's capacity would encourage multiple marketers to
10 participate in the program, not just those marketers with current access to
11 capacity, and (ii) the release of capacity to ATS Shippers for the consumers that
12 join their respective pools will ensure that such capacity costs are not stranded in
13 the Company gas cost recovery mechanism and recovered from non-transporting
14 consumers.

15 As the Commission is aware, the Company has historically held the rights
16 to a substantially greater quantity of capacity on the ESNG system than on the
17 Transporters upstream of ESNG. The Company's proposed capacity allocation
18 methodology addresses that circumstance. The Company would determine two
19 levels of consumer demand for capacity release purposes: a Maximum Daily
20 Quantity (MDQ) based on peak or design day conditions and an Average Daily
21 Quantity (ADQ) based on normal weather conditions. The MDQ for firm service
22 consumers in rate classes requiring consumption of over 100,000 Ccf per year
23 (FTS-7) would be determined seasonally (winter and summer) based on

1 assumed Heating Degree Day (HDD) conditions. The winter season would be
2 defined as the months November through April (design day at 60 HDD) and the
3 summer as the months May through October (peak day at 30 HDD). The
4 Company is proposing to install electronic remote metering devices for each
5 consumer over 100,000 Ccf per year. Over time, the electronic measurement will
6 provide accurate recording of daily usage and will be used in determining the
7 MDQ. The MDQ for consumers in rate classes under 100,000 Ccf per year (FTS-
8 1 through FTS-6) would be based on a calculation of peak usage based on the
9 maximum Ccf level in the volumetric range of each respective rate schedule. For
10 example, the capacity quantity released to consumers in the proposed FTS-4
11 rate class (10,000 to 25,000 Ccf per year) would be calculated at $25,000/365$ to
12 determine Ccf per day and converted to Dt using the Company's billing Thermal
13 Factor.

14 The consumer ADQs for all firm service rate classes (FTS-1 through FTS-
15 7) would be determined for each month based on historic usage and normal
16 weather. The ADQ for interruptible service consumers would be determined each
17 month based on the monthly gas Nomination provided for each consumer by
18 their ATS Shipper. The Company would have the right to verify and adjust the
19 ADQ in the event such nomination was incorrect. The consumer would always
20 have the right to reject the Company's adjustment and utilize an alternate fuel.
21 The consumer MDQs and ADQs would be revised each year based on updated
22 historical usage data.

1 Q. WILL THE MDQ AND ADQ QUANTITIES BE USED TO DETERMINE
2 CAPACITY RELEASE QUANTITIES?

3 A. Yes. Each month the Company would determine a quantity of Transporter
4 capacity equal to the Aggregate MDQ (AMDQ) and Aggregate ADQ (AADQ) for
5 consumers in the respective ATS Consumer Pools. The AMDQ for a given ATS
6 Consumer Pool would be the quantity of ESNG capacity released to the ATS
7 Shipper, except that for interruptible consumers the ESNG capacity would be
8 released based on their ADQ (the monthly nomination quantity). Interruptible
9 consumers subject to service interruption during peak day conditions, and with
10 alternate fuel capabilities, would not typically be allocated capacity at peak day
11 quantities. Given the price sensitivity in the interruptible class, the company has
12 historically released only ESNG capacity in volumetric quantities equal to actual
13 consumption for interruptible transportation accounts.

14 The AADQ for a given ATS Consumer Pool (both firm and interruptible
15 service consumers) would be the quantity of Transco, Columbia and/or Columbia
16 Gulf capacity released to the ATS Shipper. The Company would ensure an
17 equitable release of Transporter Receipt Points and Delivery Points. Section
18 19.22 describes the release method in detail.

19 Q. WHY IS THE CAPACITY UPSTREAM OF ESNG PROPOSED TO BE
20 RELEASED ON THE BASIS OF AADQ AND NOT AMDQ?

21 A. As noted above, the Company has limited quantities of capacity upstream of
22 ESNG. To encourage a competitive market environment for transportation
23 service with multiple ATS Shippers, the Company believes it necessary to

1 release capacity on Transco, Columbia and Columbia Gulf. However, a release
2 at MDQ levels for a season would over-allocate capacity quantities to ATS
3 Shippers on most days during a given season. Rather than provide capacity to
4 an ATS Shipper who will either under utilize max day capacity on an average day
5 or re-market the excess capacity to their benefit, the Company prefers release at
6 an average day quantity and retain the remaining quantities for use by the sales
7 customers. I discuss later in my testimony the Daily Balancing and Seasonal
8 Swing Service mechanisms that make an ADQ release feasible, along with the
9 allocation of cost for such services to the ATS Shippers.

10 **Q. WHAT INFORMATION DOES THE COMPANY PLAN TO REGULARLY**
11 **COMMUNICATE TO THE ATS SHIPPERS ABOUT THEIR CONSUMER**
12 **POOL?**

13 **A.** Each month the Company would provide to each ATS Shipper, no later than the
14 15th day of each Month, (i) a list of the Consumer Accounts comprising the ATS
15 Shipper's Consumer Pool for the following Month, (ii) the AMDQ and AADQ of
16 Transporter capacity to be released for the Consumer Accounts in the ATS
17 Shipper's Consumer Pool for the following Month and (iii) the estimated average
18 daily delivery requirements for the ATS Shipper's Consumer Pool for the
19 following Month. If the ATS Shipper disputes the information provided, the ATS
20 Shipper and the Company would work to resolve the disputed issues. If the
21 dispute cannot be resolved by the Transporter capacity release deadline, the
22 Company would release the Transporter capacity quantity and the ATS Shipper
23 would accept such Transporter capacity release and provide Gas supply service

1 to the Consumer Accounts in its Consumer Pool, but would retain its dispute
2 resolution rights as provided by tariff and law.

3 On the 18th day of each month, the Company would provide to each ATS
4 Shipper the gas quantities recorded for meter readings up through the 15th day of
5 the month. For Consumer Accounts with a remote reading device, the Company
6 would provide the Consumer's measurement data to ATS Shippers and/or the
7 respective Consumer on the day following the day the Gas consumption was
8 recorded. The information would be provided to assist ATS Shippers in meeting
9 the monthly balancing requirements for their Consumer Pool.

10 **Q. HOW WILL ATS SHIPPERS NOMINATE GAS SUPPLIES TO BE DELIVERED**
11 **TO THE COMPANY'S DISTRIBUTION SYSTEM?**

12 A. The nomination process included in each Transporters FERC Gas Tariff will
13 dictate the ATS Shippers requirements for scheduling deliveries into the
14 Company's distribution system. In addition to the Transporter nominations, ATS
15 Shippers would be required to complete and submit a separate nomination form
16 to the Company. The nomination form would include the aggregate delivery
17 quantity scheduled into the distribution system and other related information.
18 Nominations to the Company would be required to provide separate indications
19 of the nomination quantities for any consumers in rate classes FTS-7 or ITS
20 (over 100,000 Ccf per year and with remote reading devices). The Company
21 would require submittal of the nomination form for all first of the month
22 nominations as well as any intra-month nomination changes. The Company is
23 not proposing to establish a minimum daily quantity for an ATS Shipper to deliver

1 to the distribution system. The ATS Shipper would have the flexibility to schedule
2 quantities that best meet its daily requirements with certain limits up to the
3 AMDQ. The Company retains sufficient capabilities, through its monthly
4 balancing and Operational Order and unauthorized gas provisions, to adequately
5 control deliveries to its system.

6 **Q. HOW WILL DELIVERY IMBALANCES BE RESOLVED?**

7 A. There are two imbalance resolutions that would occur each month, (i) the
8 cumulative monthly imbalance between the actual quantity of gas delivered each
9 day by an ATS Shipper to the Company's City Gates on a day and the gas
10 quantity scheduled on the pipeline to be delivered for the day, and (ii) the
11 cumulative monthly balance between the actual quantity of gas delivered each
12 day by an ATS Shipper to the Company's City Gates and the aggregate gas
13 consumption for the Consumer Accounts in an ATS Consumer Pool for the Day.

14 In any Month where an ATS Shipper has an imbalance between
15 scheduled and actual deliveries at the City Gates, the Company, as operator of
16 the Transporter Delivery Point(s) and in accordance with its Transporter Service
17 Agreement and Transporter's FERC Gas Tariff, would resolve the imbalance with
18 the Transporter. Any charges or credits resulting from the Company's imbalance
19 resolution transactions with the Transporter would be recorded in the proposed
20 Company's Operational Balancing Account, as described below.

21 Any imbalance where the gas delivered by the ATS Shipper to the City
22 Gates exceeds the actual aggregated consumption of the ATS Shipper's
23 Consumer Accounts would be resolved each month through a cash-out

1 mechanism, similar to that used by the Transporters. If the monthly delivered gas
2 quantity for an ATS Consumer Pool exceeds the aggregated actual usage of the
3 Consumer Accounts, less the Company retainage, the Company would purchase
4 the excess delivery gas quantity at a price equal to the lowest of the average of
5 weekly prices for spot gas (weeks where Friday is within the calendar month)
6 delivered to Transco Zone 6, non-NY, as reported in *Platt's Gas Daily*, for the
7 month in which the imbalance occurred.

8 Any imbalance quantity where the gas delivered by an ATS Shipper is less
9 than the aggregated actual usage of the ATS Shipper's Consumer Accounts, less
10 the Company retainage, the Company would sell to the ATS Shipper the under
11 delivered gas quantity at a price equal to the sum of (i) the highest of the average
12 of weekly prices for spot Gas (weeks where Friday is within the calendar month)
13 delivered to Transco Zone 6, non-NY, as reported in *Platt's Gas Daily*, for the
14 month in which the imbalance occurred plus (ii) an amount equal to the sum of
15 (A) the Transco FT 100% load factor rates (including demand charges, usage
16 charges, surcharges, fuel reimbursement charges and all other applicable
17 charges) at the weighted average telescoped capacity cost, plus (B) the ESNG
18 FT 100% load factor rates (including demand charges, usage charges,
19 surcharges, fuel reimbursement charges and all other applicable charges) for the
20 applicable ESNG delivery zone.

21 **Q. WILL THE IMBALANCE CASH-OUT RATES BE SUBJECT TO A MULTIPLIER**
22 **FACTOR THAT INCREASES OR DECREASES THE CASH-OUT PRICE**
23 **BASED ON THE MAGNITUDE OF THE IMBALANCE?**

A. Yes. The Company is proposing to adopt a method similar to that used by FERC regulated Transporters in resolving imbalance cash-outs. The method is straightforward; the magnitude of an ATS Shipper's imbalance (as measured by the ratio derived from comparing actual gas deliveries to the ATS Shipper's actual Consumer Account consumption) at the end of a month, determines whether the cash-out price will be increased (for gas purchased by the Company from the ATS Shipper) or discounted (for gas sold by the Company to the ATS Shipper). The effect of the multipliers is to reward those ATS Shippers who stay in balance and penalize those who do not. The imbalance level factors are an incentive used by FERC pipelines and most LDCs so Shippers have an incentive to stay in balance. The imbalance level factors for excess delivery or "positive" imbalances are proposed to be:

<u>Imbalance Level</u>	<u>Factor</u>
0 to 5%	1.00
Greater than 5% up to 10%	0.90
Greater than 10% up to 20%	0.80
Greater than 20% up to 50%	0.70
Greater than 50%	0.50

The imbalance factor levels for under delivery or "negative" imbalances are proposed to be:

<u>Imbalance Level</u>	<u>Factor</u>
0 to 5%	1.00
Greater than 5% up to 10%	1.10
Greater than 10% up to 20%	1.20
Greater than 20% up to 50%	1.30
Greater than 50%	1.50

1 Q. EARLIER YOU MENTIONED A DAILY BALANCING SERVICE. PLEASE
2 DESCRIBE THIS SERVICE.

3 A. The Company is responsible for maintaining the integrity of its distribution
4 system. In addition, as Delivery Point Operator (DPO), the Company is
5 responsible for responding to the daily balancing requirements and operational
6 order conditions imposed by the upstream Transporter under its FERC Gas
7 Tariff. The Company's storage rights have historically provided the supply
8 flexibility and reliability needed to manage gas receipts at the Delivery Points. As
9 noted above, the Company's imbalance resolution procedures with ATS Shippers
10 would be applied on a monthly basis, similar to the upstream Transporters.
11 Except in the case of Operational Orders or other curtailment or emergency
12 conditions, the ATS Shippers would not be required to adjust gas supply delivery
13 volumes to adhere to daily balancing requirements into or across the distribution
14 system. The Company's Daily Balancing Service would provide for the
15 management of gas quantity deliveries at the Delivery Points.

16 The Company currently allocates a portion of its Transporter storage costs
17 to firm and interruptible transportation consumers under its existing Commission
18 approved tariff. At present, the Company establishes the rates for balancing
19 service provided to transportation consumers in its annual Gas Sales Rate
20 proceeding. The proposed tariff renames the existing balancing service the Daily
21 Balancing Service. The Company is proposing to retain the current GSR-based
22 storage cost allocation methodology. Rates for Daily Balancing Service
23 applicable to firm and interruptible transportation service would continue to be

1 established as part of the Company's annual GSR filing. Daily Balancing Service
2 would be a mandatory service provided to all ATS Shippers. Section 19.32 and
3 rate schedule DBS in the proposed tariff provide the details of the proposed cost
4 allocation method. The rate schedules are established for cost allocation
5 purposes, and the Company receives no margin for this service.

6 **Q. WHAT IS SEASONAL SWING SERVICE?**

7 A. Each year during the winter season, the Company contracts with various gas
8 suppliers to provide an on-demand daily swing service. The Company currently
9 calls on the swing service to augment its gas deliveries, including supply from
10 storage, and the deliveries of third party Shippers on days of peak system
11 demand. The Company incurs a fixed reservation (demand) cost along with
12 variable commodity and delivery costs on those days the swing service is
13 activated. The proposed Seasonal Swing Service would allocate a portion of the
14 demand and variable costs for this service to ATS Shippers. The Seasonal Swing
15 Service enables the Company to release Transporter capacity during the winter
16 at an average daily quantity (ADQ) and make up the occasional peak day
17 occurrence with the swing supply. The Company would provide the swing service
18 on a "best efforts" basis. Seasonal Swing Service would be a mandatory service
19 provided to all ATS Shippers. Section 19.33 and rate schedule SSS in the
20 proposed tariff provide the details of the proposed cost allocation method. The
21 rate schedules are established for cost allocation purposes, and the Company
22 receives no margin for this service.

1 Q. DOES THE COMPANY ANTICIPATE THAT THE DAILY BALANCING
2 SERVICE AND SEASONAL SWING SERVICE WOULD BE PERMANENT
3 SERVICES PROVIDED UNDER ANY FUTURE TRANSPORTATION SERVICE
4 PROGRAM?

5 A. Not necessarily. The DBS and SSS are good examples of the mechanisms LDCs
6 establish to support transportation service to the benefit of consumers and at the
7 same time minimize the amount of stranded costs that could negatively impact
8 those same consumers. The Company has long-standing and long-term
9 Transporter storage agreements with both fixed and variable cost components.
10 The storage rights have historically been a significant part of the Company's total
11 gas supply capability. The migration of consumers to transportation service, if not
12 managed appropriately, could result in the cost of the storage rights being bourn
13 by the non-transporting consumers. The proposed DBS ensures that does not
14 occur. The SSS is necessary in today's environment to ensure that consumers
15 have multiple shipper options to choose from, not just those with access to
16 significant quantities of capacity upstream of ESNG. Both of these services,
17 however, could be transitional. Additional Transporter capacity into ESNG will
18 likely become available over the next few years. As the Company gains
19 experience with non-residential transportation service, it may be practical to
20 allocate storage rights to ATS Shippers in a manner similar to pipeline capacity.
21 Shippers will undoubtedly identify methods of providing swing service that may
22 enable the Company to discontinue the SSS. On the other hand the Company
23 may find that such services are attractive to Shippers and are marketable at

1 competitive rates. In such circumstances the Company may elect, subject to
2 Commission approval, to offer DBS, SSS and other similar services on a
3 permanent basis.

4 **Q. ARE THERE OTHER PROPOSED MECHANISMS THAT WOULD MITIGATE**
5 **STRANDED COSTS?**

6 A. Yes. The Company is proposing to retain its existing Transition Charge.
7 Consumers transferring from General Sales Service to Transportation Service,
8 as authorized under the Company's tariff, may be required to pay a Transition
9 Charge in the future to prevent the remaining General Sales Service Consumers
10 from absorbing stranded gas supply costs which would otherwise have been
11 collected from those consumers transferring to Transportation Service.

12 **Q. IS THE COMPANY PROPOSING TO ESTABLISH OPERATIONAL**
13 **CONTROLS THAT ENABLE IT TO MANAGE GAS DELIVERIES TO THE**
14 **DISTRIBUTION SYSTEM AND TO THE CONSUMERS?**

15 A. The Company's current tariff already includes such operational controls. Part 16
16 of the existing Transportation and Balancing tariff provides for Operational Flow
17 Orders (OFO) which can be issued to limit gas deliveries to the distribution
18 system or require an adjustment (increase or decrease) in the nominated
19 quantities scheduled for delivery with eight (8) hours notice. The proposed tariff
20 (Section 19.34) expands the OFO provisions to specifically include ATS Shippers
21 for deliveries to the distribution system, and large volume consumers (over
22 100,000 Ccf per year) with electronic remote reading devices. Under the
23 proposed tariff, an OFO may be issued to (i) protect the integrity of the

1 Company's distribution system; (ii) assure delivery of Gas to Firm service
2 Consumers; or (iii) adhere to Transporter balancing or delivery requirements. An
3 OFO notice would be issued to activate the Company's Seasonal Swing Service,
4 as described above.

5 In addition to the Seasonal Swing Service OFO, the Company would be
6 able to issue an Overage OFO (to reduce deliveries or increase consumption) or
7 an Underage OFO (to increase deliveries or reduce consumption), and would be
8 able to determine whether the notice applies system-wide, to an affected area, or
9 to one or more ATS Shippers or Consumers. In each OFO notice the Company
10 would indicate the tolerance percentage applicable to the OFO period. Charges
11 are established for failure to respond to an OFO at two times highest Daily
12 Midpoint price for spot Gas delivered to any Transco Zone as published in Gas
13 *Daily*, for the Day on which the OFO Day was established plus applicable
14 Transporter capacity charges.

15 The Company's proposed tariff would also include its existing Curtailment
16 Plan. Failure to respond to a Curtailment Order would subject an ATS Shipper or
17 consumer to penalties equal to five times the above pricing standard. A Force
18 Majeure Section (Section 16) has been added to the proposed tariff, which would
19 provide the Company with the ability to limit or interrupt deliveries under
20 conditions of extreme duress (terrorism, weather events, etc.). In addition, the
21 usual first step in reducing system demand would continue to be available. The
22 Company would retain its ability to interrupt service to its interruptible class
23 consumers on four (4) hours notice.

1 Q. HOW WOULD THE PROPOSED OPERATIONAL BALANCING ACCOUNT
2 WORK?

3 A. The proposed Operation Balancing Account (OBA) would record the transactions
4 between the Company and the Transporter and/or ATS Shipper for imbalance
5 resolution, operational orders, Daily Balancing Service, Seasonal Swing Service
6 and other transactions related to transportation service. The intent of the OBA
7 mechanism is to separate transportation service related charges and credits from
8 similar charges and credits recorded in the Gas Sales Service Rate mechanism
9 for services provided by the Company to General Sales Service Consumers. The
10 OBA would provide the mechanism by which the Company accumulates and
11 assigns or allocates charges and credits related to Transportation Service to ATS
12 Shippers that have traditionally been recorded pursuant to the Company's Gas
13 Sales Service Rate mechanism. The Company would be authorized to recover or
14 refund through its OBA mechanism any and all charges or credits related to the
15 transactions.

16 The Company would not be entitled to keep any portion of the OBA
17 balance or any portion of the transactions recorded in the OBA. Within thirty (30)
18 days of the end of any calendar quarter, the Company would dispose of any OBA
19 balance with the ATS Shippers, if such balance exceeds \$100,000 (debit or
20 credit balance). In the event the OBA balance at calendar quarter end is less
21 than \$100,000, the Company would defer the disposition of the balance until
22 such time as the balance at any subsequent calendar quarter end exceeds
23 \$100,000. The Company would, within forty-five (45) days after calendar year

1 end dispose of the OBA balance with ATS Shippers, regardless of the balance
2 amount. Each ATS Shipper's OBA refund or charge would be based on the
3 proportion of each ATS Shipper's Scheduled Gas Quantities to the total
4 Scheduled Gas Quantities of all ATS Shippers during the applicable OBA period.

5 **Q. HOW MANY CUSTOMERS WILL MIGRATE TO AGGREGATED**
6 **TRANSPORTATION SERVICE?**

7 A. For the purposes of this filing, the Company's Test Period forecast assumes that
8 200 total non-residential consumers, or approximately 6.5% of total non-
9 residential accounts, will elect Aggregated Transportation Service. The Company
10 believes that to be a reasonable projection of transporting accounts within one
11 (1) year of implementation of the proposed tariff based on its experience in its
12 Florida Division and a review of other programs around the country. The
13 Company was serving 3,087 total non-residential consumers at the end of the
14 Test Period (March 2007). The Company was serving twenty-three (23) existing
15 transportation consumers (including two (2) interruptible transportation
16 consumers) at the end of the Test Period. Virtually all firm Consumers using over
17 100,000 Ccf per year are already transporting. The Company's Test Period
18 forecast assumes that all consumers using over 100,000 annual Ccf will elect to
19 transport. Included among these large volume accounts are nine (9) interruptible
20 consumers using over 100,000 Ccf per year (normalized) that were not
21 transporting at the end of the Test Period. The Company is assuming that all nine
22 (9) of the large volume interruptible accounts will migrate to transportation
23 service to preserve their interruptible status. At the end of the Test Period, the

1 Company served approximately 1,443 non-residential consumers using over
2 2,400 Ccf per year. Subtracting the 23 existing transportation accounts and the 9
3 assumed interruptible transportation accounts from the total, leaves 1,411
4 consumers that are likely candidates for transportation service. Of these,
5 approximately 858 consumers use above 10,000 Ccf per year. For forecast
6 purposes, it is reasonable to assume that 200 accounts will migrate to
7 transportation service within a year of the implementation of the program.

8 The Company evaluated each non-residential account for the purpose of
9 estimating consumer migration to Transportation Service. The cost of service
10 study for the Test Period under the proposed rate classes (Attachment JMH-8)
11 details the Company's forecast transportation consumers by rate class.

12 **Q. WHAT COSTS WILL THE COMPANY INCUR TO PROVIDE AN EXPANDED**
13 **UNBUNDLED TRANSPORTATION PROGRAM?**

14 A. The Company will incur both recurring and non-recurring (one-time) costs related
15 to the expansion of its transportation service program. The company will need to
16 modify its current computerized customer information system (CIS) and other
17 "back-office" systems to accommodate the particular features of transportation
18 service billing, and to ensure that appropriate accounting and customer service
19 records are maintained. The Company is proposing to hire one (1) additional
20 employee (Transportation Service Administrator) to support the increased
21 administrative and customer contact requirements of providing transportation
22 service. The management of several ATS Shipper Consumer Pools will require
23 significant and frequent contact with Shippers and consumer on a variety of gas

1 scheduling, billing, balancing and service issues. As existing transportation
2 services are expanded, the Company will incur training costs for its staff, as well
3 as costs to educate consumers and marketers on the specific rules, regulations
4 and procedures related to transportation service.

5 **Q. PLEASE DESCRIBE THE RECURRING COSTS.**

6 A. The Company's projected recurring annual expenses related to the
7 administration of third party gas deliveries to its distribution system total \$76,026.
8 These costs can be grouped into three basic categories: gas control
9 administration, customer and shipper education, and billing services. Costs for
10 personnel and general overheads were determined for those individuals who will
11 directly perform capacity release, supply scheduling, gas control, imbalance
12 resolution administration, transportation enrollment and billing, and other
13 transportation related functions.

14 As noted above, the Company is planning to add a Transportation Service
15 Administrator position, who along with the existing Manager of Gas Supply and
16 Procurement will be the principal administrators of the Aggregated Transportation
17 Service Program. The Company would allocate 70% of the Transportation
18 Service Administrator's annual salary and benefit cost to the Delaware Division,
19 given the scope of the proposed transportation program in Delaware. The
20 remaining time for this position would assist in transportation activities in
21 Maryland. The allocated cost of the Transportation Service Administrator position
22 is projected at \$37,536. The existing Manager of Gas Supply and Procurement
23 position currently allocates 50% of its time to the Delaware Division and 50% to

1 the Maryland Division. This position will continue to be responsible for the
2 Company's gas supply purchases for non-transporting consumers. It is estimated
3 that approximately half of the Manager of Gas Supply and Procurement time
4 allotted to the Delaware Division will be devoted to transportation related duties.
5 Overall, the transportation time allocation for the Manager position is expected to
6 be 25% of the position's total salary and benefits, an annual expense of \$18,490.
7 The above costs are recorded in Account 871. The Company identified an
8 additional approximately \$20,000 in annual embedded customer services
9 expenses (Account 903) that it is proposing to allocate to the ATS Shippers. An
10 analysis was also undertaken to determine the Company's cost to provide billing
11 and payment collection services to the ATS Shippers. It was determined that
12 such a service would cost the Company approximately \$7.50 per bill.

13 The rate design to recover costs from the ATS Shippers in the SAS and
14 SABS rate schedules and to recover costs from Consumers in the Transportation
15 Service rate schedules is described later in my testimony.

16 **Q. PLEASE DESCRIBE THE NON-RECURRING COSTS.**

17 A. The Company estimates that it will incur one-time costs of approximately
18 \$154,000 (some of these costs would be capital expenses) to implement an
19 expanded transportation service program. The non-recurring costs for which the
20 Company would seek authority to recover from rate payers include the following:

- 21 • Revisions to the Company's CIS and other "back-office" systems to
22 accommodate transportation rate classes, billing processes, establishing
23 the Operational Balancing Account and related customer account

1 recordkeeping. It should be noted, that a significant portion of the work
2 required to prepare the CIS for transportation service has already been
3 accomplished as part of the Company's unbundling activities in its Florida
4 Division. The cost estimate for this activity is \$75,000.

- 5 • Enhancements to the Company's SCADA system to accommodate the
6 new remote reading devices is estimated at \$9,000.
- 7 • Modifications to the Company's Web site is estimated at \$7,500
- 8 • Office equipment for the additional staff position is estimated at \$7,500.
- 9 • Initial staff training and educational expenses are estimated at \$10,000.
- 10 • Consumer education materials and other costs related to informing
11 consumers and marketers about the program offerings are estimated at
12 \$15,000.
- 13 • Consulting and legal fees associated with the implementation are
14 estimated at \$30,000.

15 It should be noted that the estimates of "one-time" costs represent the
16 Company's best current assessment of cost requirements and are subject to
17 change during actual program implementation.

18 **Q. HOW FIRM ARE THE CURRENT NON-RECURRING COST ESTIMATES FOR**
19 **IMPLEMENTING TRANSPORTATION SERVICE?**

20 A. Current one-time cost estimates, outlined above, total \$154,000. As the
21 Company implements its expanded transportation service program for non-
22 residential customers, the actual costs may vary from the original estimates. The
23 most significant cost, the modification to the Company's CIS, is also the largest

1 variable. Given the work to the CIS completed in Florida, the Company is
2 reasonably comfortable with the estimate. However, the actual costs will not be
3 known until the work is completed. In addition, the need for enhancements or
4 modifications to the Company's SCADA system (to accommodate the increased
5 number of remote reading devices), initial revisions to the web site, purchases of
6 computer hardware and other cost requirements related to transportation service
7 are difficult to predict without actually implementing the program.

8 **Q. HOW DOES THE COMPANY PROPOSE TO RECOVER THE NON-**
9 **RECURRING COSTS?**

10 A. The Company's rate filing does not seek recovery of the estimated \$154,000
11 "one-time" costs in base rates. However, it is reasonable and appropriate that the
12 Company be allowed to recover such costs. The Company proposes adoption of
13 a Transportation Cost Recovery (TCR) mechanism to address the recovery of
14 non-recurring costs. Under the proposed TCR provisions, the Company would
15 seek recovery of the one-time costs incurred to implement its proposed
16 expanded transportation service program. Such costs would not include recurring
17 costs related to personnel or other A&G expenses.

18 The Company would submit a TCR filing to the Commission detailing
19 actual expenses incurred to implement the Aggregated Transportation Service
20 program, subject to verification and audit by the Commission. The Company's
21 accounting records would be maintained to separately account for all TCR
22 revenues, and allow for an audit of such revenues by the Commission. At the
23 conclusion of the Commission audit, the costs approved for recovery would be

1 collected from all non-residential consumers, except those served in the
2 Company's ITS and NCR rate classes, through a base rate billing adjustment to
3 the Gas Delivery Service Charge for each rate class. In its TCR filing the
4 Company would propose a recovery period for the approved TCR amount.

5 It is appropriate that all non-residential consumers, not just the
6 transportation consumers, participate in the recovery of the one-time costs. The
7 Aggregated Transportation Service Program would be available to all non-
8 residential consumers. Many utilities offering transportation service to non-
9 residential consumers have experienced a steady migration of consumers from
10 sales to transportation service.

11 The Company seeks approval of the methodology for establishing a
12 Transportation Cost Recovery mechanism in this filing. In addition, the Company
13 seeks the Commission's authorization to pursue recovery of costs incurred in the
14 categories described above. The Company seeks some assurance from the
15 Commission that its non-recurring costs related to implementation of the
16 transportation program will be recoverable.

17 **Q. YOU HAVE FREQUENTLY MENTIONED THIRD PARTY GAS SUPPLIERS**
18 **(ATS SHIPPERS). HOW DOES THE COMPANY VIEW ITS RELATIONSHIP**
19 **WITH THE SHIPPERS DELIVERING GAS TO ITS DISTRIBUTION SYSTEM?**

20 **A.** Shippers operating on the Company's distribution system are viewed as
21 customers. In the current business environment, the Company provides a variety
22 of services to shippers. The Company will welcome active participation by
23 qualified shippers in its transportation service programs. Establishing solid

1 business relationships with shippers to meet the fuel needs of mutual customers
2 can improve the Company's ability to grow its system and retain existing
3 consumers. The Company is proposing straightforward program requirements
4 that should encourage both shipper and consumer participation. An awareness
5 campaign to educate non-residential consumers about transportation service
6 opportunities is also proposed. All non-residential consumers would be contacted
7 through direct mailings or by Company personnel to review their transportation
8 options. To encourage competition and ensure a level playing field for all ATS
9 Shippers, the Company plans to provide a list of the non-residential accounts in
10 its service areas to all qualified marketers. The Company would also provide a
11 list of existing ATS Shippers and other gas marketers interested in forming a
12 Consumer Pool to all non-residential consumers. Company personnel are
13 prepared to schedule regular meetings with consumers, ATS Shippers or gas
14 marketers interested in participating in the program to ensure an appropriate
15 venue for the discussion of operational policies, service issues and program
16 improvements.

17 **Q. IS THE COMPANY PROPOSING A PHASE-IN PERIOD FOR**
18 **IMPLEMENTATION OF ITS EXPANDED TRANSPORTATION SERVICE**
19 **PROGRAM?**

20 **A.** The Company believes the aggregated transportation service program, as
21 described above, can be fully operational within ninety (90) days of the
22 Commission order approving the program. That operational timeframe assumes
23 Commission approval of the recovery of the recurring and non-recurring costs

1 related to providing expanded transportation service described above. Mr.
2 Tietbohl's testimony provides additional information on the Company's proposed
3 phase-in of a full unbundling program applicable to all consumers.

4 **Q. DO YOU BELIEVE THE AGGREGATED TRANSPORTATION SERVICE**
5 **PROGRAM WILL MEET THE EXPECTATIONS OF THE COMPANY'S NON-**
6 **RESIDENTIAL CONSUMERS?**

7 A. Yes. The Company is committed to providing an easy transition to transportation
8 service for all non-residential customers. One of the Company's most important
9 business objectives is to proactively establish programs and services that meet
10 the needs and expectations of its consumers. In the Company's view, the
11 growing interest in transportation service among commercial and industrial
12 consumers requires that the Company provide expanded transportation options.
13 The migration of consumers to transportation service is an opportunity to solidify
14 the Company's relationships with existing consumers, and develop business ally
15 relationships with shippers. The Company believes the transportation options
16 included in this filing are a reasonable, measured step toward unbundling the
17 system. The proposed aggregated transportation program is relatively
18 inexpensive to implement and operate. As designed, the program should meet
19 the current expectations of consumers. As the market continues to evolve and
20 consumers' needs change, the Company will stand ready to offer new service
21 options to meet those needs.

Cost of Service and Rate Design

Q. PLEASE DESCRIBE THE PROCESS USED TO DESIGN THE PROPOSED PERMANENT RATES.

A. A fully embedded cost-of-service study was produced to determine the appropriate assignment of expense and investment costs to each of the Company's proposed classes of service. The cost study utilized information from all areas of the Company's operations, including customer billing and consumption records, engineering studies, forecasts of growth, and cost data from its accounting records. The total cost of service was assigned or allocated to determine the revenue requirement and the earned rate of return on rate base for each class of customers. The results of the analysis provided the principal basis for the Company's proposed rate design.

Q. WAS A PARTICULAR METHODOLOGY OR MODEL USED TO CONDUCT THE COST OF SERVICE STUDY?

A. Yes. The Company utilized a Cost of Service Model purchased from Navigant Consulting, Inc. The same model was used in the Company's 2001 rate filing. Compilation of the financial, customer and operational data inputs for the model were performed by Company personnel. Several internal cost studies (e.g. minimum main size analysis, design day demand by class, meter data by customer, etc.) that formed the basis for the cost allocations in the model were also developed by the Company. The internal cost studies and the determination of the Company's overall revenue deficiency are discussed in Jennifer Clausius' testimony. I provided consulting assistance throughout the process. The final

1 allocation of costs and the proposed rate design were developed by me or
2 prepared under my direction.

3 **Q. WAS A CONSISTENT METHODOLOGY USED IN EACH OF THE ABOVE**
4 **COST STUDIES?**

5 A. Yes. Each study used the Navigant model and applied the same allocation
6 procedures and costing methods. The fundamental differences between the
7 studies are the differences in costs and revenues between the "Test Year" and
8 "Test Period", the proposed rate increase and the proposed rate classes. All of
9 the revenue, sales, cost and operational data used in the studies is consistent
10 with the data provided in the Company's Minimum Filing Requirements
11 ("MFR's"), and other documents filed in support of the rate request, for the "Test
12 Year" and "Test Period". No costs or revenues related to gas supply are included
13 in the cost studies, given that such costs are included in the Company's Gas
14 Sales Rate Mechanism.

15 **Q. PLEASE DESCRIBE THE OBJECTIVES IN PERFORMING A COST OF**
16 **SERVICE STUDY.**

17 A. There are two primary objectives in cost of service analysis. The first objective is
18 to establish a relationship between the Company's costs to provide service and
19 the cause of such costs. Plant investment and operating cost information
20 associated with major operational functions (production, distribution, customer
21 service, etc.) are classified based on utilization factors (demand, commodity,
22 number of customers, revenue, etc.) that "cause the cost", and then allocated to
23 the Company's customer classes to determine the cost to provide service to each

1 class. The second objective is the determination of the rate of return for each of
2 the Company's customer classifications based on present rates. Such
3 information will provide guidance in equitably allocating the Company's existing
4 costs and proposed revenue increase. The determination of cost causality
5 developed in the cost study is the fundamental starting point in designing rates
6 by class that recover the Company's cost to serve.

7 **Q. YOU INDICATED THAT COSTS WERE ALLOCATED BY CUSTOMER CLASS.**
8 **PLEASE DESCRIBE HOW CUSTOMER CLASSES ARE ESTABLISHED.**

9 A. Customers of a utility are usually grouped into relatively homogeneous classes
10 according to their service characteristics. Consumption levels, pressure
11 requirements, load factors, conditions under which service is provided
12 (curtailment status, for example), and end-use application of the fuel can be
13 considered when establishing service classes. Traditionally, LDC's have
14 established classes based on customer type (residential, commercial, industrial)
15 and/or annual volumetric therm consumption ranges. Other class distinctions,
16 firm vs. interruptible and sales vs. transportation, for example, are also common.

17 In most cases the utility can identify a different level of cost to provide
18 service to each discrete service class. Distinctions between classes established
19 by customer type or volume have generally been based on the discernable cost
20 differences from one class to another or the presence of market conditions that
21 dictate the classification. Several cost breakpoints can be identified which can
22 generally be linked to annual volumetric requirements. Meter and regulator type
23 and size, service line size, and on-going maintenance costs are among the cost

1 items that distinguish one service class from another. Another important factor
2 that may be considered in classifying customers is the impact of a customer or
3 class of customers on the Company's local distribution capacity. The facility
4 related costs to serve are a function of peak hour load requirements not annual
5 transportation volumes. System demand considerations are critical in assessing
6 the overall cost of providing service to the respective service classes. However,
7 most LDC's have elected to group customers by annual volume rather than peak
8 day volume or other demand requirements. The rates charged to customers
9 assigned to a given customer class reflect, to the extent possible, the costs to
10 serve the customers in the class.

11 **Q. PLEASE LIST THE COMPANY'S CURRENT RATE CLASSIFICATIONS.**

12 **A.** The Company's current tariff includes the following approved rate classifications:

- 13 • Residential Service (RS)
- 14 • General Service (GS) (0 – 4,000 Ccf/year)
- 15 • Medium Volume Service (MVS) (4,000 - 15,000 Ccf/year)
- 16 • Large Volume Service (LVS) (>15,000 Ccf/year)
- 17 • High Load Factor Service (HLFS)
- 18 • Natural Gas Vehicle Service (NGV)
- 19 • Gas Cooling Service (GCR) (Residential)
- 20 • Gas Cooling Service (GCO) (Non-residential)
- 21 • Gas Lighting Service (GLR) (Residential)
- 22 • Gas Lighting Service (GLO) (Non-residential)
- 23 • Negotiated Contract Rate (NCR)

- Interruptible Service (IS)
- Interruptible Best Efforts Service (IBE)
- Gas Sales Service Rates (GSR)
- Transportation and Balancing
- Gas Supplier Requirements (SUP)
- Environmental Rider (ER)
- Seasonal Firm Service (SFS)
- Franchise Fee Riders for various municipalities

Q. PLEASE LIST ANY CUSTOMER CLASSIFICATIONS THE COMPANY PROPOSES TO ELIMINATE.

A. The following existing customer classifications (rate schedules) are proposed to be eliminated:

- Residential Service (RS)
- General Service (GS) (0 – 4,000 Ccf/year)
- Medium Volume Service (MVS) (4,000 - 15,000 Ccf/year)
- Large Volume Service (LVS) (>15,000 Ccf/year)
- Gas Cooling Service (GCR) (Residential)
- Gas Cooling Service (GCO) (Non-residential)
- Interruptible Service (IS)
- Gas Sales Service Rates (GSR)
- Transportation and Balancing Service
- Gas Supplier Requirements (SUP)
- Seasonal Firm Service (SFS)

1 Q. IS THE COMPANY PROPOSING TO RETAIN ANY OF ITS EXISTING RATE
2 CLASSIFICATIONS?

3 A. Yes. The following rate classes would continue under the proposed tariff with no
4 substantive modifications, other than the HLFS class described below. All of the
5 rate schedules listed below would receive minor editing to ensure consistent tariff
6 formatting:

- 7 • High Load Factor Service (HLFS) (proposed as a Rider in new tariff)
- 8 • Gas Lighting Service (GLR) (Residential)
- 9 • Gas Lighting Service (GLO) (Non-residential)
- 10 • Negotiated Contract Rate (NCR)
- 11 • Interruptible Best Efforts Service (IBE)

12 In addition, the Environmental Rider (ER) and Franchise Fee Riders for various
13 municipalities would be retained without modification.

14 Q. PLEASE DESCRIBE THE MODIFICATIONS TO THE EXISTING HLFS RATE
15 SCHEDULE.

16 A. The Company is proposing to convert the existing HLFS rate schedule into a HLFS
17 Rider. The Rider would modify (lower) the proposed variable per Ccf rate for the
18 GS-4, FTS-4, GS-5, FTS-5, GS-6, FTS-6, rate classes for eligible consumers. The
19 existing HLFS rates (\$40 customer charge and \$0.102 Ccf) are significantly lower
20 than the existing rates for other non-HLFS consumers using similar annual
21 volumes. The cost to serve these higher load factor consumers is not appreciably
22 different from consumers with lower load factors. Each HLFS designated consumer
23 would be assigned to the applicable GS or FTS rate class based on annual volume,

as proposed in the new rate design. The Company's proposed HLFS Rider would apply the monthly Customer Charge for the existing HLFS consumer's applicable GS or FTS rate class, but keep the existing HLFS variable rate (\$0.102 Ccf) for all HLFS consumers. Without the proposed HLFS Rider, the rate adjustment for those consumers currently billed under the HLFS rate schedule would be substantially greater than other similar consumers. Only those consumers currently billed under the HLFS rate schedule would be eligible for the proposed HLFS Rider. In future rate proceedings the Company would seek Commission approval to increase the HLFS Rider variable rate to a point where it would intersect the variable rates for the applicable rate classes. The Test Period includes 151 GS-4, 85 GS-5, 18 GS-6, 1 GS-7 and 7 FTS-7 HLFS consumers (262 total).

Q. PLEASE PROVIDE A COMPLETE LIST OF THE RATE CLASSIFICATIONS AND RATE RIDERS THE COMPANY PROPOSES TO ADOPT AND/OR RETAIN AND THE ANNUAL CCF VOLUMETRIC RANGES FOR EACH CLASS, IF APPLICABLE.

A. The proposed rate classifications are as follows:

<u>Rate Class</u>	<u>Ccf Per Year</u>
• Residential Service – 1 (RS-1)	0 - 240
• Residential Service – 2 (RS-2)	240 - 1,000
• Residential Service – 3 (RS-3)	>1,000
• Residential Service E. Sussex County Expansion Area Rider (RSES)	240 - 1,000
• General Sales Service – 1 (GS-1)	0 - 240

1	• Firm Transportation Service – 1 (FTS-1)	0 - 240
2	• General Sales Service – 2 (GS-2)	240 - 1,000
3	• Firm Transportation Service – 2 (FTS-2)	240 - 1,000
4	• General Sales Service – 3 (GS-3)	1,000 – 2,400
5	• Firm Transportation Service – 3 (GS-3)	1,000 – 2,400
6	• General Sales Service – 4 (GS-4)	2,400 – 10,000
7	• Firm Transportation Service – 4 (FTS-4)	2,400 – 10,000
8	• General Sales Service – 5 (GS-5)	10,000 – 25,000
9	• Firm Transportation Service – 5 (FTS-5)	10,000 – 25,000
10	• General Sales Service – 6 (GS-6)	25,000 – 100,000
11	• Firm Transportation Service – 6 (FTS-6)	25,000 – 100,000
12	• General Sales Service – 7 (GS-7)	>100,000
13	• Firm Transportation Service – 7 (FTS-7)	>100,000
14	• Interruptible Transportation Service (ITS)	>100,000
15	• Gas Lighting Service (GLR) (Residential)	
16	• Gas Lighting Service (GLO) (Non-residential)	
17	• Shipper Administrative Service (SAS)	
18	• Shipper Administrative and Billing Service (SABS)	
19	• Daily Balancing Service (DBS)	
20	• Seasonal Swing Service (SSS)	
21	• Natural Gas Vehicle Service (NGV)	
22	• Interruptible Best Efforts Gas Supply Service (IBE)	
23	• Negotiated Contract Rate (NCR)	

- 1 • High Load Factor Service Rider (HLFS) (closed to new entrants)
- 2 • Environmental Rider (ER)
- 3 • Area Extension Program Rider
- 4 • Energy Conservation Cost Recovery Rate Adjustment Rider (ECCR)
- 5 • Revenue Normalization Mechanism Rider (RNM)
- 6 • Transportation Cost Recovery Rate Adjustment Rider (TCR)
- 7 • Town of Smyrna Franchise Fee Rider (TSFF)
- 8 • City of Milford Franchise Fee Rider (CMFF)
- 9 • Town of Georgetown Franchise Fee Rider (TGFF)
- 10 • City of Millsboro Franchise Fee Rider (MBFF)

11 **Q. PLEASE DESCRIBE THE PROPOSED RESIDENTIAL SERVICE EASTERN**
12 **SUSSEX COUNTY RIDER (RSES).**

13 A. The proposed RSES Rider is discussed in detail in Jeffrey Tietbohl's testimony.

14 **Q. DOES THE COMPANY'S COST STUDY ACCOUNT FOR THE PROPOSED**
15 **REVISIONS TO ITS EXISTING RATE CLASSIFICATIONS?**

16 A. Yes. The various cost studies prepared for this filing appropriately address the
17 proposed new rate classifications.

18 **Q. PLEASE DESCRIBE THE COMPANY'S COST OF SERVICE STUDIES.**

19 A. The Company prepared six (6) Cost of Service studies to assist in determining an
20 appropriate recovery of costs from its rate classes. As described in detail later in
21 my testimony, the Company is proposing significant modifications to its existing
22 rate classes. Cost studies were produced to examine the effects of the
23 Company's proposed rate increase on consumers under the existing and

1 proposed rate classes and with and without the proposed rate increase. The
2 following cost studies are summarized in my attachments:

- 3 • Attachment JMH-1: Cost study for the "Test Year" based on the
4 Company's current rates and existing rate classes.
- 5 • Attachment JMH-2: Cost study for the "Test Period" based on the
6 Company's current rates and existing rate classes.
- 7 • Attachment JMH-3: Cost study for the "Test Year" based on the
8 Company's current rates and proposed rate classes.
- 9 • Attachment JMH-4: Cost study for the "Test Period" based on the
10 Company's current rates and proposed rate classes.
- 11 • Attachment JMH-5: Cost study for the "Test Period" based on the
12 Company's proposed rates and existing rate classes.
- 13 • Attachment JMH-6: Cost study for the "Test Period" based on the
14 Company's proposed rates and the proposed rate classes.

15 **Q. HOW IS A COST OF SERVICE STUDY PERFORMED?**

16 A. Traditional cost studies can be segmented into three individual activities:
17 functionalization, classification and allocation.

- 18 1. Functionalization refers to the process of categorizing plant investments
19 and associated operating expenses by the operational functions
20 associated with each cost item. The functional categories would include
21 production, storage, transmission, distribution, gas supply, customer
22 service, etc. Plant investments and related operation, maintenance,
23 depreciation and tax expenses are assigned to the functional categories.

1 The functional assignment of costs is a relatively straightforward process.
2 The Company maintains its accounting records in accordance with the
3 FERC Uniform System of Accounts. FERC accounting generally assigns
4 plant facilities and investments to cost of service functions. Related
5 expenses follow the same functionalization.

6 2. Classification refers to the process of dividing the functional costs into
7 categories based on cost causation. Each local distribution system is
8 designed and operated based on the individual and collective service
9 requirements of its Consumers. The cost of providing such service is
10 categorized in order to assign costs to the customer classes that are
11 principally responsible for those costs. Typically, there are four categories
12 used to group costs: capacity or demand costs, commodity costs,
13 customer costs and revenue costs.

14 (i). Demand or capacity related costs are those costs incurred by the
15 utility to meet the on-demand service requirements of the total
16 customer base. Demand costs are related to the peak or maximum
17 demand requirements placed on the system by its Consumers.
18 Demand costs are incurred to ensure that the system is ready to
19 serve Consumers at peak requirements levels. These costs are
20 generally considered to be "fixed", and are incurred whether or not
21 a customer uses any gas.

22 (ii). Commodity costs generally relate to the quantitative units of
23 product consumed. Costs which can be linked to the volume of gas

1 sold or transported fit into this category. In the Company's cost
2 study costs related to natural gas in storage and propane gas in
3 storage (used in the peak shaving facility) are classified as
4 commodity costs.

5 (iii). Customer costs are those costs attributable to the number of
6 customers served. Costs incurred to connect a customer to the
7 distribution system, meter usage and maintain customer account
8 records fall into this category. Customer costs are generally
9 assumed to be fixed since such costs continue to be incurred
10 without regard to a customer's level of consumption.

11 (iv). Revenue costs are related to those costs items which can be
12 assigned based on the percentage of total revenue received from
13 each class of customer. These costs vary with the amount of sales
14 revenue collected by the Company. Gross receipts taxes fall into
15 this category.

16 During the classification process some functional costs (principally mains
17 and services) are divided between classification categories. This division
18 of costs indicates that a functional cost is incurred by the utility to meet
19 more than one purpose. For example, the costs for distribution mains are
20 generally divided between Demand and Customer classification
21 categories. Gas mains provide a base level connection to the distribution
22 system for every customer. The mains also provide the capacity to serve
23 each firm customer's demand for delivery service under certain

1 designated system design conditions. Frequently, a minimum size study is
2 undertaken to assess the costs required to provide a minimum or base
3 level of service to each firm customer, regardless of the customer's
4 demand requirements. The study provides the basis for a division of mains
5 costs between Customer and Demand cost classifications. Typically, a
6 "minimum size" study is also conducted to classify Customer and Demand
7 related Service costs. Other functional costs may be divided between
8 classification categories using similar internal cost studies.

- 9 3. Allocation involves the distribution or assignment of the classified costs to
10 a company's customer classes. Those costs which can be directly
11 attributable to a specific customer or customer class are assigned to that
12 customer or class. The remaining costs are assigned by applying a series
13 of allocation factors. The allocation factors distribute costs based on the
14 causal relationships between the respective customer classes and the
15 classified costs. Generally, there is a direct link between the classification
16 of costs and the allocation of costs to the customer classes. The
17 development and application of the allocation factors and direct
18 assignment of costs is the final step in a cost of service study.

19 **Q. YOU INDICATED EARLIER THAT DURING THE CLASSIFICATION PHASE**
20 **SOME FUNCTIONAL COSTS ARE DIVIDED BETWEEN CLASSIFIERS. DO**
21 **THE COMPANY'S COST STUDIES REFLECT SUCH A DIVISION OF COSTS?**

22 **A.** Yes. The costs for the largest plant investment items, Mains and Services, were
23 classified between Demand and Customer related cost causation categories. The

1 Company's minimum size study from the 2001 base rate filing was updated using
2 2006 data. The 2006 study indicated that approximately 28% of plant investment
3 in Mains is related to Demand and the remaining 72% is related to the number of
4 customers served. A similar classification of the plant investment costs for
5 Services was undertaken. The Company updated a minimum size study for
6 Services. The current study indicated that approximately 15% of plant investment
7 in Services is Demand related and the remaining 85% is related to the customers
8 served.

9 **Q. PLEASE DESCRIBE THE ALLOCATION OF CLASSIFIED COSTS IN THE**
10 **COMPANY'S COST STUDIES.**

11 A. The Company's cost studies apportion costs to each consumer rate class
12 through the use of several cost allocators. Certain costs incurred to serve non
13 end-use customers (third party gas marketers, or "Shippers" as such parties are
14 designated in the Company's proposed tariff) were directly assigned by the
15 Company as described later in my testimony. While certain costs are assignable
16 to specific consumers groups of consumers, it is not realistic to assume that the
17 majority of a utility's plant and expense costs can be directly assigned. Gas
18 utilities provide service to most consumers through facilities that are jointly used
19 by consumers (gas mains for example). Common allocation methods must be
20 developed to reasonably apportion common costs to the rate classes.

21 **Q. PLEASE DESCRIBE THE PRIMARY DEMAND COST ALLOCATORS IN THE**
22 **COST OF SERVICE STUDY.**

1 A. The principle underlying all demand-related allocators is that fixed demand costs
2 should be apportioned to rate classes in a manner that reflects both the basis for
3 which the costs are incurred, as well as the actual utilization of the system by
4 Consumers entitled to receive service once the system has been installed. There
5 are three primary demand-related cost allocators used in the cost studies.
6 Distribution mains demand-related costs were classified based on a "minimum
7 size" study. The mains demand costs were allocated to the firm service
8 consumer rate classes based on the calculated daily throughput demand for
9 each rate class on a peak or Design-Day. Consumers served in an interruptible
10 service class do not receive a Demand related mains cost allocation, under the
11 presumption that their service would be interrupted during a Design-Day
12 condition. For system planning and design purposes, the Company assumes that
13 a Design-Day represents a sixty (60) heating degree-day event. The Design-Day
14 allocator is designated "DD" in the cost of service model. The Design-Day
15 allocator was also used to allocate costs related to the Company's investment in
16 its Liquefied Petroleum peak shaving facility.

17 **Q. PLEASE CONTINUE.**

18 A. The second Demand allocator is applicable to Service costs. While it is
19 appropriate to eliminate Demand-related Mains costs for interruptible consumers,
20 the Service costs should be allocated to all consumers. A Demand related
21 classification of the Company's Service costs was also based on a "minimum
22 size" study. The study determined a base cost to connect to the distribution
23 system at the "minimum service size". These costs were classified as Customer

1 related costs. The balance of costs is related to meeting consumer demand.
2 These demand related Service costs are allocated to all rate classes, including
3 the interruptible class, based on the proportional relationship of the maximum
4 demands of each rate class under Design-Day conditions. The allocation of
5 service costs recognizes the demand requirements of interruptible consumers on
6 the sizing and number of services installed. The allocator for Demand related
7 service costs in the cost studies is "MAXDD", reflecting the combination of the
8 Design-Day allocator and the interruptible consumer cost data. The Company
9 also developed a peak and average monthly sales volume allocator to allocate
10 Meter & Regulator (M&R) station costs. The peak and average methodology is
11 typically used to allocate commonly used plant by assessing system-wide
12 monthly demand by customer class. While the peak and average allocator is
13 generally deemed not sophisticated enough to account for peak hour demand,
14 system load diversity or demand requirements on particular segments of the
15 distribution system, it is appropriate for M&R station allocations. The peak and
16 average allocator is designated "PAVG" in the cost studies.

17 **Q. HOW WERE COMMODITY COSTS ALLOCATED?**

18 A. Commodity related costs were allocated on the basis of NG seasonal sales and
19 annual throughput volumes and design day. The principal commodity related
20 costs included natural gas in storage, propane gas in storage and various
21 expenses related to the Company's peak shaving facility. Where the costs being
22 allocated applied commonly to all consumers, including those consumers

1 receiving transportation service, the annual throughput volumes allocator was
2 utilized.

3 **Q. PLEASE DESCRIBE HOW YOU ALLOCATED CUSTOMER COSTS.**

4 A. The primary Customer costs allocator is based on the average number of
5 consumers served in each customer class for the annual period.

6 **Q. HOW WERE REVENUE COSTS ALLOCATED?**

7 A. Revenue costs were allocated on the basis of gross revenues by customer class.

8 **Q. WHAT OTHER ALLOCATION PRACTICES WERE EMPLOYED IN THE COST**
9 **STUDIES?**

10 A. In addition to the primary allocation methods discussed above, the Company
11 conducted a specific internal cost study that analyzed meter installations by type
12 and rate class. Meter installation costs were allocated based on the meter study.
13 General Plant costs not specifically identified with any function are allocated to
14 the rate classes in proportion to all other allocated investments. The Company
15 allocated O&M expenses directly related to plant items in the same manner as
16 the plant investment. Supervisory and engineering expenses were allocated to
17 the other expense accounts to which they applied in proportion to the amounts of
18 cost in each account. Customer Service costs for meter reading, records and
19 collection and uncollectible accounts were allocated based on an internal
20 analysis of costs produced by the Company. Administrative and General
21 expenses were allocated using a three factor method based on plant in service,
22 rate base and labor costs associated with the non-A&G expense accounts. The
23 allocation of depreciation reserves and depreciation expenses follow the

1 allocation of the plant accounts. The cost allocation protocol used in the current
2 cost studies is virtually identical to that used by the Company in their 2001 base
3 rate filing.

4 **Q. HAS THE COMPANY DIRECTLY ALLOCATED O&M COSTS RELATED TO**
5 **ITS PROPOSED TRANSPORTATION SERVICE PROGRAM TO SPECIFIC**
6 **CUSTOMER CLASSES IN ITS COST OF SERVICE STUDY?**

7 A. Yes. The Company has directly assigned certain costs attributable to the
8 services provided by the Company to third party gas marketers (Shippers).
9 Additionally, transportation administration costs were also assigned to the
10 Transportation Service consumer rate classifications. As described above in the
11 Aggregated Transportation Service section of my testimony, the Company
12 identified \$76,026 in recurring O&M costs required to support the administration
13 of its proposed Aggregated Transportation Service program. For the purposes of
14 this filing no plant investment costs related to transportation service were directly
15 assigned. The rate design to recover costs from the ATS Shippers in the SAS
16 and SABS rate schedules and to recover costs from Consumers in the
17 Transportation Service rate schedules is described later in my testimony.

18 **Q. IT WOULD APPEAR THAT A COST OF SERVICE STUDY IS PRIMARILY A**
19 **MECHANICAL ACCOUNTING OF COSTS. ARE THERE OPPORTUNITIES TO**
20 **APPLY JUDGMENT, CONSIDER MARKET CONDITIONS OR OTHER**
21 **MITIGATING FACTORS IN THE STUDY?**

22 A. Yes. Cost studies, at the outset, are not simply formula based accountings of
23 costs by rate classification. They require judgment by an experienced analyst to

1 appropriately allocate and assign costs. Within the cost of service study, the
2 selection and application of allocation factors requires not only a mechanical
3 understanding of the Company's costs, but also a common sense understanding
4 of a variety of economic, social, regulatory and competitive considerations.

5 **Q. SHOULD A COST OF SERVICE STUDY BE EXCLUSIVELY RELIED UPON TO**
6 **ESTABLISH UTILITY RATES?**

7 A. No. There are a number of factors that must be considered when designing
8 rates. An appreciation of the utility's business strategy, market area and
9 competitive position is necessary to complete an appropriate rate design. One of
10 the most critical is the competitive position of the Company in the marketplace.
11 Consumers in all rate categories have fuel alternatives. Increasingly, Consumers
12 are demonstrating greater sophistication in their consideration of energy options.
13 Price elasticity, proximity to the interstate pipeline and specific fuel alternatives
14 vary greatly among customer classes. In the residential service class the
15 homebuilder, not the homeowner, typically makes energy decisions for new
16 homes. Fuel price is only one factor homebuilders consider in evaluating
17 appliance types. There are numerous non-price issues in all customer classes
18 that affect fuel selections. For example, maintenance concerns, fuel storage,
19 emissions levels, appliance efficiency, comfort and aesthetics all play a part in a
20 consumer's fuel decisions. The bottom line is that consumers have choices. The
21 Company's proposed rate design utilizes a cost of service study as a starting
22 point, but the final rate recommendations consider the above issues and make
23 appropriate adjustments.

1 Q. DOES THE COMPANY REGULARLY COMPARE ALTERNATE FUEL PRICES
2 TO NATURAL GAS?

3 A. Yes. The Company regularly analyzes competing fuel costs. This process
4 involves a number of activities including: surveys of customers, contacts with
5 competitors, the review of various energy price indices, an analysis of various
6 tariff base rates and fuel recovery charges and the calculation of physical by-
7 pass costs.

8 My testimony includes an attachment that charts the results of the
9 Company's most recent cost comparisons. Attachment JMH-8 provides the
10 results of the cost comparisons between natural gas and propane, fuel oil and
11 electricity for several customer classes. The exhibit provides a comparison of the
12 Company's proposed rates by class with the various alternate fuels. For
13 residential and commercial customers under approximately 50,000 Ccf per year,
14 the energy alternatives are primarily electricity and propane. For larger
15 commercial and industrial customers the alternate energy sources also include
16 various grades of oil.

17 Q. WHAT DOES THE ANALYSIS SHOW WITH REGARD TO RESIDENTIAL
18 CONSUMERS?

19 A. The Company's proposed rates (inclusive of the Gas Sales Service Rate)
20 applicable to residential Consumers were compared to propane and electric
21 costs for comparable usage levels over a month. All costs are expressed in
22 equivalent Ccf's and reflect the different BTU values of propane gas and
23 electricity relative to natural gas. Electric costs are based Delmarva Power's web

1 site "Price to Compare" for the Residential Service (RS) and Residential Heating
2 (RH) Delaware service area rate classes, effective June 1, 2007. Propane gas
3 costs are based on a survey of various propane retailers. In the analysis
4 residences using 500 Ccf of natural gas per year or greater were assumed to
5 have heating systems. The alternative electric costs analysis assumes space
6 heating energy equals 42% of the total natural gas volume, water heating equals
7 44% and other uses equal 14%. These ratios are based on the Company's
8 standard 500 Ccf per year home load assumptions of 220 Ccf for water heating,
9 210 space heating and 70 Ccf for cooking and clothes drying. The electric costs
10 assume an air-source heat pump with an effective Coefficient of Performance
11 equal to 2.5 COP, and an electric storage tank water heater with an Energy
12 Factor of .92 EF.

13 The Company's proposed rates are competitive with propane and
14 electricity at all usage levels. The price of all fuels is comparable at very low
15 usage levels (100 Ccf per year). A significant price advantage exists for natural
16 gas compared to propane gas. A reasonable price advantage over electricity
17 exists for all usage levels over 100 Ccf per year. The Company does not
18 anticipate any significant loss of business among existing residential consumers
19 or in the new residential construction market as a result of implementing the
20 proposed residential rate schedules.

21 **Q. WHAT DOES THE ANALYSIS SHOW WITH REGARD TO COMMERCIAL**
22 **CONSUMERS?**

1 A. Attachment JMH-8 also presents a cost comparison for non-residential
2 Consumers. The evaluation was divided into two consumer groups based on
3 annual usage. A "small non-residential" analysis looked at consumers using 100
4 up to 9,500 Ccf per year and a "large non-residential" analysis was developed for
5 consumers using 10,000 up to 95,000 Ccf per year. The analysis methodology is
6 similar to that described above for residential consumers. Cost comparisons are
7 provided for propane gas and electricity relative to the Company's proposed
8 rates. Propane costs were obtained through retail surveys. The electric costs are
9 as published on the Delmarva Power web site for non-residential accounts.
10 Usage levels below 1,000 Ccf per year are assumed to be in Delmarva's Small
11 General Service rate class. Usage levels above 1,000 Ccf per year were
12 assumed to be in the Medium General Service Heating rate class. Usage levels
13 above 40,000 Ccf per year were assumed to be in Delmarva's Large General
14 Service rate class. All accounts above 1,000 Ccf are assumed to have space
15 heating systems. The analysis assumes that heating represents 50% of the
16 natural gas volume for small volume accounts and 40% of the annual volume for
17 large volume accounts. Electric heat is assumed to be an air-source heat pump
18 with an effective COP of 2.5.

19 The Company's proposed rates at very low volumes (less than 200 Ccf
20 per year) result in higher costs than propane or electricity. At all other volume
21 levels the Company would maintain a competitive price advantage over electricity
22 and propane.

1 Q. WHAT DOES THE ANALYSIS SHOW WITH REGARD TO FIRM LARGE
2 COMMERCIAL AND INDUSTRIAL CONSUMERS?

3 A. Attachment JMH-8 presents a cost comparison using the Company's proposed
4 gas rates for firm large volume commercial and industrial consumers (>100,000
5 Ccf per year) and current propane, No. 2 and No. 6 oil pricing. For the purpose of
6 this analysis, the Company assumed that all consumers were transporting. The
7 commodity fuel price assumed for transporting consumers is \$0.90 per Ccf. The
8 pricing for large volume propane deliveries (transport drops) and fuel oil are
9 regularly tracked by the Company as part of its current interruptible billing
10 mechanism. Propane rates used in the analysis represent an average of pricing
11 at Marcus Hook, Delaware City and Schafferstown for May 2007, plus
12 transportation and margin. Oil pricing is based on *Journal of Commerce Oil Price*
13 *Daily* published pricing for the same period at Baltimore and Philadelphia plus
14 transportation and margin. No. 6 oil pricing is an average of 1% and 2.9% sulfur
15 content oil. The Company's proposed rates are marginally competitive with
16 propane and No. 2 oil at the 100,000 Ccf per year level. At higher usage levels
17 natural gas is less expensive than propane or No. 2 fuel oil. At all usage levels
18 No. 6 fuel oil is a less expensive alternative than natural gas, absent any
19 consideration for costs other than fuel price (maintenance of equipment,
20 environmental compliance, fuel storage and handling, etc.).

21 Q. DOES THE COMPANY'S PROPOSED RATE DESIGN CONSIDER
22 ALTERNATE FUEL PRICING OR OTHER MARKET FACTORS?

1 A. Yes. The Company considered alternate fuel prices as well as other market
2 factors in designing rates. The Company's proposed rate design separates
3 residential Consumers into three (3) new classes based on annual Ccf usage.
4 These proposed classes and their respective rates were selected based on the
5 need to add and retain residential Consumers. In setting rates for the low usage
6 class (RS-1), the Company was particularly sensitive to the Company's
7 competitive concerns with electricity and the potential attrition of these
8 consumers. The Company's rate design for non-residential Consumers also
9 proposes rates that consider competition with electricity and propane gas.
10 Proposed rates for the large commercial and industrial classes (>100,000 Ccf per
11 year) are designed to provide the Company its best opportunity to compete with
12 oil and the other alternatives available to large volume Consumers.

13 **Q. IS THE COMPANY PROPOSING CHANGES TO ITS CURRENT RATE**
14 **STRUCTURE?**

15 A. Yes. The primary change the Company is proposing ties the design of its rate
16 structure to the new proposed volumetric customer classifications for Residential
17 Service, General Sales Service and Transportation Service (firm and
18 interruptible) describe above. The rate structure proposed for all volumetric
19 consumer rate classes includes a fixed monthly Customer Charge and a variable
20 Gas Delivery Charge based on the quantity of gas consumed during a billing
21 period. In addition, the firm service classes over 100,000 annual therms (GS-7,
22 FTS-7) include fixed seasonal Demand Charge components. Overall, the

1 proposed rate structure is intended to move gradually toward a Straight Fixed
2 Variable (SFV) rate design.

3 **Q. TO WHAT EXTENT IS THE COMPANY PROPOSING TO MOVE TOWARD A**
4 **SFV RATE STRUCTURE?**

5 A. The Company is proposing a rate design for all consumers that begins to
6 incorporate the primary elements of SFV rates. That is, a significant portion of the
7 Company's proposed revenue requirement would be collected through an
8 increase in the existing fixed monthly Customer Charges, or for larger volume
9 firm accounts, through a new fixed monthly Demand Charge. The variable rate
10 component for all classes would collect a smaller percentage of the overall
11 revenue requirement. The revenue recovered through the Company's fixed
12 Customer Charges and Demand Charges represents approximately 45% of the
13 total proposed target revenues in the Test Period. Under its present rate design,
14 the Company collects approximately 30% of total revenues from fixed charges.

15 **Q. WHY IS MOVING TOWARD A SFV RATE DESIGN APPROPRIATE?**

16 A. As the interstate pipelines unbundled FERC recognized that, in the absence of
17 commodity sales by the pipelines, few variable cost components remained.
18 Except for costs primarily related to compression and odorization, few costs were
19 dependent on gas throughput. The pipeline's revenue requirement was largely
20 defined by fixed costs unaffected by the volume of gas transported on the
21 pipeline. The SFV rate design used by virtually all FERC regulated pipelines
22 collects the vast majority of revenues through fixed demand or capacity
23 reservation charges. For example, Transco's demand or reservation rates for

1 capacity represent well over 90% of their total charges. These capacity
2 reservation or demand rates are applied on a take or pay basis, further evidence
3 of FERC's acknowledgement that fixed costs are more appropriately recovered
4 through fixed charges. At the outset of open access several pipelines, including
5 those serving the Company, adopted a modified version of SFV rate design. The
6 Modified Fixed Variable (MFV) design split the pipeline's fixed rate components
7 into two separate fixed charge elements, similar to the Customer Charge and
8 Demand Charge the Company is proposing for larger consumers.

9 The Company has fewer variable cost elements than the interstate
10 pipelines, other than its gas supply costs which are not included in the base rates
11 at issue in this proceeding. There are virtually no plant investments or operating
12 expenses that can be directly linked to the throughput of gas delivered on the
13 Company's distribution system. As noted above, although its costs are fixed the
14 recovery of those costs is primarily dependent on variable charges tied to
15 consumer gas consumption. The Company's proposed monthly Customer
16 Charges are designed to recover a greater proportion of the revenue requirement
17 increase for most rate classes than the corresponding increase in variable
18 distribution charges. The unit cost data from the cost study was used to guide the
19 Company's determination of appropriate Customer Charge rates. The Company
20 understands that a complete shift to fixed rates for all classes is not practical at
21 this time. Nonetheless, the Company is proposing to initiate a gradual move
22 toward a rate design that would ultimately recover a majority of the Company's
23 revenue requirement from fixed charges.

1 Q. PLEASE DISCUSS THE COMPANY'S DEMAND CHARGE PROPOSAL IN
2 GREATER DETAIL.

3 A. The Company's proposed rate design begins to differentiate rates on the basis of
4 load factor rather than simply using annual consumption to classify consumers.
5 The proposed design recovers a portion of fixed Capacity-related costs through a
6 fixed monthly seasonal demand charge. As noted earlier, the Company analyzed
7 the design day usage characteristics of each of its consumer classes for the
8 winter and summer seasons. For the purpose of this analysis, winter was defined
9 as the period November through April, and summer was defined as the period
10 May through October. Although an excellent case could be presented to apply a
11 demand charge component to all rate classes, the Company proposes that the
12 charge be established only for the GS-7, FTS-7 firm service consumer classes
13 (>100,000 Ccf per year).

14 The proposed Demand Charge was derived using the following
15 methodology. The total cost to serve was determined for each of the above rate
16 classes from the cost of service study. The cost study identified cost levels for
17 each class that are significantly below the revenues historically collected from
18 these classes. The Company's proposed rate design recovers the majority of
19 Customer related costs through the respective monthly Customer Charge. The
20 remainder of the costs identified in the cost study (Demand, Commodity and
21 Revenue classified costs) are recovered through the Demand Charges. The
22 variable rate (per Ccf) is established to recover the remaining revenue

1 requirement proposed for the applicable classes based on the forecast rate class
2 annual volume.

3 A new billing determinant was required to establish the Demand Charge
4 rate. The Company is proposing to utilize each applicable consumer's seasonal
5 Maximum Daily Quantity (MDQ) for this purpose. A MDQ for these consumers
6 would be determined for the Winter Season and Summer Season based on Peak
7 Day delivery requirements. A Peak Day would be defined as a Gas Day during
8 the Winter Season in which 60 Degree-Days are assumed, or a Gas Day during
9 the Summer Season in which 30 Degree-Days are assumed. The Company
10 would determine a consumer's Peak Day Gas requirements for a respective
11 season based on the consumer's historical Gas measurement data over the
12 preceding thirty-six (36) month period, if available. Consumers in the GS-7, FTS-
13 7 classes will be required to have a remote reading device capable of producing
14 daily consumption readings. To the extent Daily measurement data is available
15 the Company would use such data in the determination of historical Peak Day
16 usage. If usage data from a remote reading device is not available, the Company
17 would utilize historic Monthly measurement data to calculate a Seasonal Peak
18 Day. In the event no actual measurement data is available, the Company would
19 estimate the Seasonal Peak Day based on information supplied by the
20 Consumer and/or calculation of consumer's Gas usage based on inspection of
21 Gas equipment installed at consumer's premise. As soon as practicable, the
22 Company would utilize actual measurement data to establish Seasonal MDQs for

1 a consumer. Historical and/or estimated measurement data would be adjusted to
2 account for Seasonal Peak Day weather conditions.

3 Subsequent to establishing the initial MDQ's, the Company would, on an
4 annual basis each January, review the Gas usage history for each consumer in
5 the applicable rate classes over the previous thirty-six (36) month period. A
6 consumer's MDQ would be adjusted to reflect the maximum daily usage
7 recorded during such period, except that (i) the Company would not adjust the
8 actual recorded seasonal MDQ to a level below any seasonal MDQ established
9 in the Transportation Service Agreement with the consumer and, (ii) the
10 Company would not increase a consumer's current Seasonal MDQ unless the
11 consumer's recorded maximum daily usage exceeds the consumer's existing
12 Seasonal MDQ on no less than three (3) occurrences within the thirty-six (36)
13 month period preceding the Company's annual review each January.

14 The Company analyzed each consumer in the affected classes and
15 determined individual seasonal MDQ's. The annual Demand-related cost for
16 each class from the cost study described above was divided by the cumulative
17 MDQ's for each class in each season to determine a cost per MDQ for billing
18 purposes. The Company is proposing to apply the Demand Charge based on the
19 winter MDQ during the respective winter billing months and the Demand Charge
20 based on the summer MDQ during the summer billing months.

21 The MDQ determinant was also required to determine monthly billing
22 amounts for individual consumers within a given rate class. The applicable

1 seasonal Demand Charge rate would be multiplied each month by the
2 customer's individual seasonal MDQ.

3 **Q. WHY IS THE COMPANY SEEKING GREATER VOLUME BASED**
4 **STRATIFICATION IN ITS RATE CLASSES?**

5 A. The Company is proposing to restructure its existing Residential Service,
6 General Service, Medium Volume Service and Large Volume Service classes to
7 achieve greater stratification within the classes. The Company proposes to
8 restructure its rate classes to group customers based on common usage
9 characteristics, investment requirements to serve customers in a given group,
10 and operational costs. The Company has reviewed the cost of providing service
11 to consumers of varying sizes and usage characteristics. Several cost
12 breakpoints were identified which could generally be linked to annual volumetric
13 requirements. The proposed rate classes, as well as the rates to be applied,
14 were also developed with consideration of the competitive factors that influence
15 and affect the markets in which the Company conducts its business.

16 Historically, many utility rate designs have resulted in larger-volume
17 customer classes subsidizing the costs of smaller volume classes. It is also not
18 unusual to find a class defined by a wide volumetric Ccf range that exhibits
19 subsidization within the class. That is, the class does not homogeneously
20 represent the customers it contains. Further stratifying the Company's existing
21 customer classes to collect customers into more homogeneous groups would be
22 a significant step toward reducing subsidization.

1 The volume ranges in the existing classes are relatively large. All
2 residential consumers are grouped into a single Residential Service class. The
3 existing non-residential classes are distinguished by annual volume ranges,
4 however, the current ranges encompass multiple customer types and usage
5 characteristics. For example, the existing Large Volume Service class (Rate
6 Schedule LVS) encompasses all firm non-residential consumers using over
7 15,000 Ccf per year. LVS customers include restaurants, hotels, office buildings,
8 hospitals and industrial facilities. These customers often exhibit markedly
9 different service requirements. Within this volume range several distinct cost of
10 service levels were identified. There are also substantial differences in the
11 margin contributions of consumers at various consumption levels within this
12 class, resulting in clear rate inequities. Efforts to establish parity in the rates-of-
13 return among customer classes is difficult to justify when there are major cost of
14 service differences within a given class. Continuing the current volume ranges in
15 the Company's customer classes would perpetuate the undue subsidization of
16 certain customer groups.

17 To guide the development of the proposed rate classifications the
18 Company reviewed the cost of providing service to consumers of varying sizes
19 and usage characteristics. Several cost breakpoints were identified which could
20 be reasonably linked to annual volumetric requirements. Meter and regulator type
21 and size, service line size, and on-going maintenance costs are among the cost
22 items that distinguish one service class from another. While many of the facility-
23 related costs to serve are more a function of peak day load requirements than of

1 annual consumption volumes, it is possible to establish annual volumetric
2 classifications based on discernible cost differences. Rate class stratification is
3 further warranted in order for the Company to effectively compete with alternate
4 fuels, primarily propane, fuel oil and electricity. As an example, the unregulated
5 propane industry is free to customize rates for individual or small groups of
6 consumers to meet competitive market conditions. The Company needs the
7 ability to more closely match alternate fuel pricing practices. Greater volumetric
8 stratification in the Customer Classes would significantly improve the Company's
9 ability to meet competitive pricing threats.

10 In theory, rates for all customer classes should be established at levels to
11 achieve parity in the rate of return between classes. In practice, rates must be
12 designed that enable the Company to compete for business. Achieving perfect
13 return equity among classes is meaningless if it results in increased customer
14 attrition or the inability to grow the Company. Reallocating the margin
15 contribution from one customer class to another, and appropriately addressing
16 both cost recovery and market pricing, is a major challenge of this case. Of
17 course, the overall pressure on rates created by competitive and economic
18 forces dictate that the Company continue its on-going efforts to implement
19 efficient practices and contain costs. It must also look for opportunities to grow
20 margins in an economically feasible manner as a means of recovering fixed
21 operating costs and minimizing the need for future base rate increases.

1 Q. DO THE COMPANY'S CURRENT RESIDENTIAL SERVICE CONSUMERS
2 EXHIBIT CHARACTERISTICS THAT WOULD WARRANT ESTABLISHING
3 MULTIPLE RESIDENTIAL CLASSES?

4 A. Yes. Applying the same service cost and market considerations discussed
5 above, the Company's existing residential service class can be divided into three
6 distinct groups, (i) consumers using less than 240 Ccf per year, (ii) consumers
7 using between 240 and 1,000 Ccf per year, and (iii) consumers using over 1,000
8 Ccf per year. The small use consumers generally are not heating their homes
9 with gas. These consumers typically have one or two gas appliances (water
10 heater, range or dryer), or are seasonal (summer) residents. For system planning
11 purposes the Company estimates gas water heater use at approximately 180 to
12 220 Ccf per year. A gas range or dryer would typically consume approximately 25
13 to 40 Ccf per year, each. The Test Period forecast includes 5,453 residential
14 consumers using less than 240 Ccf per year. In the Company's proposed rate
15 design these consumers would be included in the RS-1 class.

16 The majority of the Company's residential consumers would be included in
17 the proposed RS-2 class (240 - 1,000 Ccf per year). The Test Period forecast
18 includes 23,617 residential consumers whose annual consumption fell into the
19 above range. Most consumers at this usage level have multiple gas appliances
20 and are using gas to heat their homes. Virtually all of the Company's new
21 construction residential additions are in the 240 - 1,000 annual Ccf range. The
22 forecast also includes 2,010 residential consumers using over 1,000 Ccf per year
23 at the end of 2006 which would be assigned to the RS-3 class.

1 Q. PLEASE EXPLAIN THE RATIONALE FOR STRATIFICATION IN THE
2 RESIDENTIAL SERVICE RATE CLASSES.

3 Historically, the rates of return for small volume consumer classes have
4 been set well below the system average return. Other larger-volume classes
5 subsidized the small consumers. Additionally, for companies with one all-
6 inclusive residential class, it is not unusual to find the larger volume residential
7 consumers subsidizing the smaller volume residential consumers. There are two
8 significant concerns raised by this situation. First, as noted above, increasing
9 alternate fuel competition is making it more difficult to add and retain core
10 commercial and industrial customers. That difficulty is compounded when rates
11 for those commercial consumers are set to subsidize small consumers,
12 especially residential classes. Second, setting rates for small, principally low use
13 residential consumers at levels that do not produce an appropriate return affects
14 the Company's ability to invest in facilities to add these consumers.

15 Gas distribution system expansions are generally dictated by the typical
16 pattern of development in an area experiencing growth. Residential housing
17 developments are constructed followed by commercial projects to provide
18 services to the new residents. Gas utilities make feasibility assessments for
19 facility extensions to serve the residential developments. If the residential
20 projects are not feasible, the Company will not be able to extend its facilities,
21 losing not only the residences, but most likely the commercial businesses as
22 well. One of the most significant components in the Company's extension of
23 facilities feasibility evaluations is the margin received from residential consumers.

1 If the rates for such consumers are established at levels that do not recover costs
2 and produce reasonable returns on investment, the Company may lose
3 opportunities to grow its distribution system or exacerbate cross class
4 subsidization. Investing in residential service for returns below the Company's
5 cost of capital ultimately places additional pressure on highly competitive non-
6 residential rates. Failure to grow the distribution system and spread the
7 Company's fixed costs over a larger consumer base would likely result in future
8 rate increases for all ratepayers.

9 The Company's cost of service study for the Test Period at Current
10 Revenues and the proposed rate classes (Attachment JMH-4) indicates a -2.36%
11 rate of return for the proposed 0-240 Ccf per year RS-1 rate class. The RS-2
12 class, 240-1,000 annual Ccf, exhibits a 5.71% return, and the RS-3 class, above
13 1,000 Ccf per year, achieves a return of 13.26%. The Company's proposed
14 overall system rate of return, at proposed revenues, for the Test Period is 9.68%.
15 The Company recognizes that the rate level necessary to produce a parity rate of
16 return for the RS-1 and RS-2 class residential consumers may be burdensome
17 for these consumers. The Company is also concerned that increases to the rates
18 for small volume consumers could result in lost accounts. Stratifying the existing
19 single residential service rate class enables the Company to group the small use
20 consumers into a class where rates can be designed to generate a marginally
21 positive return and gradually move toward the system return over an extended
22 period. Rates for larger volume residential consumers in the proposed RS-2
23 class can be increased more expeditiously to levels approaching parity. Given

1 that the large volume residential consumers (the proposed RS-3 rate class) are
2 already contributing above the system average rate of return, the Company has
3 proposed a percentage increase in rates below the overall system average
4 increase.

5 **Q. IN ADDITION TO THE DAILY BALANCING SERVICE AND SEASONAL**
6 **SWING SERVICE DISCUSSED ABOVE, THE COMPANY'S PROPOSED RATE**
7 **STRUCTURE INCLUDES TWO RATE SCHEDULES THAT RECOVER COSTS**
8 **FROM ATS SHIPPERS. PLEASE DISCUSS THE PROPOSED SHIPPER**
9 **ADMINISTRATIVE SERVICE (SAS) AND SHIPPER ADMINISTRATIVE AND**
10 **BILLING SERVICE (SABS) RATE CLASSIFICATIONS.**

11 **A.** The Company currently provides substantial administrative services to third party
12 marketers. At present, all of the costs for these services are recovered from
13 consumers in the Company's base rates. Under its proposed aggregated
14 transportation service program the administrative services provided to ATS
15 Shippers will be expanded. The Company is proposing to recover a portion of the
16 costs to provide these services directly from the ATS Shippers through a Shipper
17 Administrative Service Charge.

18 All ATS Shippers receive services from the Company based on the
19 Company's performance as Delivery Point Operator (DPO) on the ESNG
20 interstate pipeline. The DPO, acting under the respective pipeline's FERC Gas
21 Tariff, provides services to ATS Shippers related to the delivery of gas on the
22 interstate pipeline to the Company's City Gate interconnections with ESNG. Such
23 services include gas quantity nominations, scheduling, access to pipeline meter

1 data, imbalance resolution and the disposition of operational orders. The
2 Company currently owns and serves as DPO for 49 Delivery Points with ESNG.

3 In addition to the "upstream" DPO services, all ATS Shippers would
4 receive certain "downstream" services related to the delivery of gas received
5 from the ATS Shipper across the Company's distribution system to the ATS
6 Shipper's Consumer Accounts. For example, access to the Company's meter
7 reading data, gas control reports detailing deliveries and imbalance status,
8 Operational Balancing Account (OBA) administration, capacity relinquishment
9 and reassignment services, and other related administrative services. The
10 recovery of costs for the DPO services described above along with the services
11 described above are included in the Company's proposed Shipper Administrative
12 Service (SAS) rate classification. Under the Company's proposed tariff the SAS
13 is mandatory for each ATS Shipper.

14 The Company is also proposing to offer an optional billing and payment
15 collection service to any ATS Shipper. The Shipper Administrative and Billing
16 Service (SABS) would provide consumer billing, payment agent, collections and
17 account maintenance services in addition to the transportation administrative
18 services described in the SAS above. The ATS Shipper's charges for gas supply
19 would be billed on the Company's monthly billing statement as a separately
20 identified item.

21 **Q. EARLIER IN YOUR TESTIMONY YOU DISCUSSED CERTAIN RECURRING**
22 **COSTS ASSOCIATED WITH PROVIDING SERVICES TO THE COMPANY'S**

1 **ATS SHIPPERS. PLEASE DESCRIBE THE PROPOSED RATE DESIGN TO**
2 **RECOVER THESE RECURRING COSTS.**

3 A. The Company views the ATS Shippers as customers. The recurring costs to
4 provide service to ATS Shippers are appropriately recovered through charges to
5 the Shippers. As described earlier in my testimony, the Company identified a
6 total of \$76,026 in recurring transportation service related expense costs. At this
7 time, the Company is not proposing to allocate any plant investment to ATS
8 Shippers. The Company's transportation administrative staff analyzed the
9 anticipated work tasks required to administer the aggregated transportation
10 program. The analysis indicated that approximately 20% of the staff's time
11 allocated to Delaware Division transportation service would be spent working
12 with ATS Shippers. The remaining time (80%) would be devoted to consumer-
13 related transportation activities and is proposed for recovery through the Firm
14 Transportation Service monthly Customer Charge for each rate class.

15 The total recurring cost of \$76,026 was divided between ATS Shipper
16 caused costs (20% of the total) and consumer caused costs (80% of the total).
17 The annual recurring costs allocated to ATS Shippers (20%) totaled \$15,205.
18 The Company anticipates four (4) ATS Shippers will initially participate in the
19 Aggregated Transportation Service Program. Recovery of \$15,205 from four (4)
20 projected ATS Shippers over a twelve-month period equals \$316.77 per month.
21 The Company's proposed Shipper Administrative Service (SAS) rate class
22 establishes a monthly fixed charge of \$320 billable to each ATS Shipper. The
23 Company's proposed Shipper and Shipper Administrative and Billing Service

1 (SABS) rate schedule includes two rate elements: a monthly fixed Customer
2 Charge and a variable charge based on the number of transportation Consumers
3 served by the ATS Shipper. The monthly SABS fixed Customer Charge is
4 identical to the monthly SAS Customer Charge at \$320. The services provided
5 under the SAS and SABS are identical, except for the monthly billing and
6 payment agent service provided in the SABS.

7 The SABS variable charge is based on the Company's estimated costs to
8 provide billing and payment agent service for the ATS Shipper's Consumer Pool.
9 The Company estimates that providing the billing and payment agent service will
10 require recovery of \$7.50 per consumer per month. For the purposes of this rate
11 proceeding, the Company is forecasting that 200 consumers will receive
12 transportation service in the Test Period, of which 100 will receive a bill from the
13 Company under its SABS service.

14 **Q. PLEASE DISCUSS THE PROPOSED CONSUMER RATE SCHEDULES FOR**
15 **FIRM TRANSPORTATION SERVICE.**

16 A. The proposed rate design includes a Firm Transportation Service (FTS) rate
17 class that corresponds to each General Sales Service (GS) volumetric
18 classification. The GS rate schedules include rates for both Gas Delivery Service
19 and Gas Sales Service. The FTS rate schedules exclude Gas Sales Service
20 since the gas supply for these consumers is provided by a third party Shipper.
21 The FTS Gas Delivery Charge rate for each respective rate class is identical to
22 the GS Gas Delivery charge rate for the same volumetric rate classification. The
23 monthly Customer Charge for each FTS rate class is proposed at a higher level

1 than the monthly Customer Charge for the corresponding GS rate class. The
2 higher FTS Customer Charges are designed to recover 80% of the \$76,026 total
3 recurring annual transportation related administration costs, as described above,
4 from the 200 transportation accounts assumed for the Test Period. The costs
5 proposed for recovery from firm transportation service consumers through the
6 monthly Customer Charge is \$60,821.

7 **Q. PLEASE DISCUSS THE PROPOSED DAILY BALANCING SERVICE (DBS)**
8 **RATE SCHEDULE.**

9 A. As described earlier in my testimony, the Company currently allocates a portion
10 of its Transporter storage costs to firm and interruptible transportation consumers
11 under its existing Commission approved tariff. The current rates for balancing
12 service provided to transportation consumers are included in the Company's
13 annual Gas Sales Service Rate (GSR) proceeding. Under the current tariff, LVS
14 consumers electing transportation service pay a tariff authorized rate for Firm
15 Balancing Service of \$0.039 per Ccf consumed, ITS consumers pay an
16 Interruptible Balancing Service charge of \$0.005 per Ccf, and HLFS consumers
17 pay a High Load Factor Balancing Service charge of \$0.017 per Ccf. The current
18 tariff authorizes the Company to bill the consumer for the balancing service. The
19 Company proposes to retain the current GSR-based storage cost allocation
20 methodology for Daily Balancing Service. The DBS rates applicable to firm and
21 interruptible transportation service consumers would continue to be established
22 as part of the Company's annual GSR filing. The High Load Factor Balancing

1 Service charge would be discontinued consistent with the proposed deletion of
2 the HLFS class.

3 **Q. PLEASE DISCUSS THE PROPOSED SEASONAL SWING SERVICE RATE**
4 **SCHEDULE.**

5 A. The Seasonal Swing Service (SSS) rate schedule is designed to allocate a
6 portion of the Company's winter season peak day swing service costs to ATS
7 Shippers. The allocation of the Company's Transporter capacity on pipelines
8 upstream of ESNG is based on the Aggregate Average Daily Quantity (AADQ) of
9 gas required for a given winter month under conditions of normal weather. On
10 those days when the system demand peaks due to weather (or theoretically any
11 reason) the ATS Shipper will not have sufficient capacity to deliver gas into
12 ESNG for delivery to the distribution system. On such days, the Company would
13 activate its swing service supply agreements and supplement the ATS Shippers
14 deliveries.

15 The fixed demand cost incurred by the Company each Month associated
16 with the Company's Seasonal Swing Service would be allocated to ATS Shippers
17 based on the proportional relationship between each ATS Shipper's Winter
18 Season AMDQ as discussed earlier in my testimony and the total distribution
19 system AMDQ as determined by the Company under Winter Season Peak Day
20 conditions. The ratio calculated based on this relationship would be multiplied by
21 the total SSS demand quantity for the entire distribution system to establish an
22 allocated SSS demand quantity for each ATS Shipper. The ratio would be
23 recalculated each month as changes occur to each ATS Shipper's Consumer

1 Pools. The monthly ratio for each ATS Shipper would be multiplied by the
2 Company's total SSS fixed demand costs, and the resulting amount billed to the
3 respective ATS Shipper each month during the winter season. Subsequent to the
4 monthly allocation of SSS fixed demand costs, the remaining costs would be
5 assigned to non-transporting Consumers through the Company's Gas Sales Rate
6 Clause, as they are today.

7 The variable commodity and Transporter costs associated with the
8 utilization of the Seasonal Swing Service on a given day would be allocated to
9 ATS Shippers based on the proportional relationship between each ATS
10 Shipper's Winter Season AMDQ as discussed earlier and the ATS Shipper's
11 AADQ for the month in which the swing service is activated. The ratio calculated
12 based on such relationship would be multiplied by the total SSS quantity for the
13 entire distribution system for that day to establish an allocated SSS variable
14 quantity for each ATS Shipper. The ratio would be calculated for each day that
15 the swing service is activated. The monthly ratio for each ATS Shipper would be
16 multiplied by the Company's total SSS variable costs for the SSS day, and the
17 resulting amount billed to the respective ATS Shipper in the month in which a
18 swing service day occurred. Subsequent to the allocation of SSS variable costs
19 on a day, the remaining costs would be assigned to non-transporting Consumers
20 through the Company's Gas Sale Rate Clause, as they are today.

21 **Q. SEVERAL EXISTING RATE SCHEDULES ARE PROPOSED FOR**
22 **ELIMINATION. PLEASE EXPLAIN.**

1 A. The existing RS, GS, MVS, LVS and HLFS classes are proposed for elimination,
2 but would be replaced with the new volumetrically stratified Residential Service
3 and General Sales Service classes. The SFS class currently serves only one
4 consumer, who would also be moved to a volumetric class. There are currently
5 no consumers served under the Company's Gas Cooling rate classes
6 (commercial or residential). The Company would serve any future gas cooling
7 sales in the consumer's respective volumetric class.

8 **Q. THE EXISTING INTERRUPTIBLE SERVICE RATE SCHEDULE IS PROPOSED**
9 **FOR ELIMINATION. WILL CONSUMERS CONTINUE TO HAVE AN**
10 **INTERRUPTIBLE SERVICE OPTION?**

11 A. Yes. The Company is proposing to replace the current Interruptible Service (IS)
12 rate classification with an Interruptible Transportation Service classification. If
13 approved, all consumers desiring interruptible service would be required to select
14 an ATS Shipper and receive transportation service. No interruptible sales service
15 would be available. At the end of 2006, the Company served 95 consumers
16 under its interruptible service rate schedule. Of these consumers, 30 met the
17 Company's existing transportation service eligibility threshold of 30,000 Ccf per
18 year. Two (2) interruptible consumers were transporting at that time.

19 **Q. IS THE COMPANY PROPOSING OTHER CHANGES TO ITS INTERRUPTIBLE**
20 **SERVICE RATE CLASS?**

21 A. Yes. The Company's current tariff allows any non-residential consumer to elect
22 interruptible service. As noted above, at the end of 2006, the Company was
23 serving 95 consumers under its interruptible rate class. Of the 95 interruptible

1 consumers, 81 were using less than 100,000 Ccf per year and 62 of those
2 consumers used less than 25,000 Ccf per year. The Company is proposing to
3 establish a minimum annual Ccf threshold of 100,000 Ccf for all interruptible
4 consumers, and as noted above, require all interruptible consumers to transport.
5 Those consumers currently receiving interruptible service whose annual gas use
6 is less than 100,000 Ccf would be transferred to a firm service rate class based
7 on their annual volume.

8 The Company has traditionally designated a consumer's Character of
9 Service as firm or interruptible. Theoretically, an interruptible consumer receives
10 a reduced rate for service, as compared to firm consumers, in return for receiving
11 a reduced level or character of service. Interruptible service consumers provide
12 the Company a measure of system operational and gas supply flexibility, to the
13 benefit of other firm service consumers. Virtually all service interruptions are
14 related to gas supply or Transporter delivery constraints. In actual practice,
15 service interruptions are quite rare. Over the past three years the Company has
16 interrupted some portion of its interruptible service consumers on only two
17 occasions. Both of these interruptions occurred as a result of system demand
18 forecasts exceeding capacity entitlement quantities on ESNG.

19 There are two fundamental reasons the Company is proposing to
20 establish volume based eligibility criteria for existing Interruptible Service
21 consumers. First, the Company is currently providing a rate discount to
22 numerous consumers that have limited alternate fuel capabilities, and limited
23 ability to quickly (within 4 hours) respond to a service interruption notice. For

1 example, over sixty (60) of the existing interruptible accounts are serving schools
2 or medical facilities. Second, interrupting small volume consumers, such as a
3 school, provides limited system benefits. As noted above, the vast majority of the
4 company's interruptible consumers use less than 100,000 Ccf per year, and over
5 half use less than 10,000 Ccf. The total daily delivery requirements for
6 consumers using under 100,000 Ccf/year, which would be subject to interruption,
7 are projected at less than 600 Dt under design day conditions. The limited
8 system benefit from interrupting small volume consumers, along with the high
9 probability that many of these consumers would be physically unable to switch
10 fuels, and the concern that interruptions could negatively impact community
11 services, leads the Company to establish a volumetric threshold for interruptible
12 service. Consumers not meeting the 100,000 Ccf annual requirement would be
13 served under a firm service volumetric rate class.

14 **Q. HOW ARE THE PROPOSED ITS RATES DESIGNED?**

15 A. The Company is proposing to restructure its interruptible consumer rate design.
16 Under the current tariff, revenues from interruptible sales less associated gas
17 costs and taxes are defined as the margin. In most cases the delivered gas cost
18 to an interruptible consumer is based on a comparison of natural gas commodity
19 and transportation pricing to the consumer's potential alternate fuel price for the
20 same period. Under its proposed rate design the Company would recover its
21 embedded cost to serve from interruptible consumers through the monthly
22 Customer Charge. Additional revenue, if any, would be recovered through a
23 flexible volume-based Gas Delivery Service Charge. The delivery charge would

1 be negotiable based on a consumer's alternate fuel costs and other market and
2 operational factors.

3 The Company's cost study under present revenues and the proposed new
4 rate classes (Test Period at Current Revenues, Attachment JMH-4) indicates that
5 the ITS class is currently generating a 111.13% return. The forecast normalized
6 revenues based on historic volumes from the 11 proposed ITS consumers is
7 \$574,853. The Company's cost study under proposed revenues (Test Period at
8 Proposed Revenues, Attachment JMH-6) assigns a revenue requirement (cost
9 allocation) of \$123,840 for the ITS class, generating a parity return at the overall
10 cost of capital (9.68%). For rate design purposes, the Company adjusted the
11 revenue requirement for the ITS class to increase the proportion of total costs
12 recovered from the class, and correspondingly, to reduce the revenue
13 requirement from other classes. The adjusted cost basis which ITS rates were
14 designed to recover is \$574,869, (as detailed in Attachment JMH-7) equal to the
15 forecast normalized revenue. The proposed Customer Charge of \$935 per month
16 would recover the embedded cost to serve (approximately \$123,420). Any
17 additional revenue from ITS consumers would be generated through the
18 proposed negotiated variable rate. The ITS rate class at the proposed rates
19 would reflect a rate of return of (111.45%), and continue to be significantly higher
20 than the Company's overall rate of return.

21 **Q. HOW IS THE COMPANY PROPOSING TO ADDRESS ALTERNATE FUEL**
22 **DISCOUNTS IN ITS TARIFF?**

1 A. There are two mechanisms proposed for the new tariff. First, the ITS variable
2 rate component, as described above, would be negotiated between the Company
3 and the consumer. If required to meet the consumer's specific pricing
4 requirements the variable rate could be adjusted based on a consumer's
5 alternate fuel price. The variable rate adjustment could occur over any time
6 period (daily, weekly, monthly) necessary to compete with the consumer's fuel
7 alternative. Second, the existing Negotiated Contract Rate (NCR) rate schedule
8 would be retained in the event the Company needs to discount a tariff rate to
9 compete with alternate pricing situations resulting from but not limited to fuel
10 switching, facility relocation or expansion, partial or complete plant production
11 shifting, potential physical bypass, or other options available to the Consumer.
12 The Company would use the NCR only after a determination by the Company
13 and the Consumer that other existing Tariff options, including the Interruptible
14 Transportation Service rate schedule, would not meet the Consumer's needs. For
15 example, a firm service consumer with a by-pass opportunity would be a
16 candidate for the NCR service. The price to the Consumer under the NCR would
17 provide net revenues above the incremental cost to provide service.

18 **Q. WHAT OTHER RATE CLASSES ARE PROPOSED FOR ELIMINATION?**

19 A. The Company proposes to eliminate the current Gas Sales Service Rates (GSR)
20 rate schedule and establish a Gas Sales Service Rate Clause in the Rules and
21 Regulations section (Section 20) of its proposed tariff. The majority of the
22 information currently included in the existing Gas Sales Service Rates schedule
23 has been relocated to the Rules and Regulations section of the tariff. The

1 Commission approved Gas Sales Service Rate for each Residential Service and
2 General Sales Service class has been incorporated on the respective rate
3 schedules for those service classes. Likewise, the Transportation and Balancing
4 and Gas Supplier rate schedules have been incorporated into Section 19 of the
5 Company's proposed tariff. As noted above, at the end of 2006, the Seasonal
6 Firm Service class accounted for 2,552 annual Mcf sales to one (1) consumer
7 totaling \$3,147 in gas delivery service revenue. Given the low volumes and
8 number of consumers served in this class, the Company is proposing to re-class
9 the affected consumer to the respective volumetric class.

10 **Q. ARE THERE OTHER COMPONENTS OF THE COMPANY'S EXISTING RATE**
11 **DESIGN THAT ARE PROPOSED FOR ELIMINATION?**

12 **A.** Yes. The Company's current rate design includes rate blocks for the RS, GS and
13 MVS classes. The proposed volumetric classes do not include rate blocks. The
14 principal rationale behind block rates is similar to the SFV objective discussed
15 earlier in my testimony. In most cases, including the Company's, the rate blocks
16 are designed where the variable or volumetric unit cost is reduced as a
17 consumer's consumption increases. The first block, at the lowest level of
18 consumption and (typically) the highest rate is usually designed at a consumption
19 level that represents the consumer's base gas load with minimal weather impact.
20 One of the significant problems with rate blocks designed with descending rates
21 linked to ascending volumes is that they are contrary to the objectives of energy
22 conservation. A rate design based on the principal of "the more you use the less
23 you pay" simply does not work in today's energy environment, and sends an

1 inappropriate price signal to consumers. The Company's proposed rate design
2 moves toward SFV rates through the increase of fixed Customer Charges and
3 the adoption of Demand Charges for certain classes. Recovering fixed costs
4 through increased fixed charges and eliminating the current rate blocks sends a
5 more appropriate price signal to consumers and supports the conservation of
6 energy to the benefit of all citizens.

7 **Q. ARE THERE OTHER SUBSTANTIVE CHANGES TO THE RATE SCHEDULES**
8 **PROPOSED BY THE COMPANY?**

9 A. Yes. The Company is proposing to include a new section in the Special Terms
10 and Conditions of Service in all Residential Service rate schedules and all
11 General Sales Service and Firm Transportation Service rate schedules, except
12 GS-7 and FTS-7. The new special condition would enable the Company to
13 recover, through a surcharge to the Gas Delivery Service charge, the cost of
14 converting a potential consumer from an alternate fuel to natural gas. At the
15 option of the consumer, and subject to the agreement of the Company, the
16 consumer's conversion costs for interior piping, appliance conversion, etc. would
17 be paid by the Company. The consumer would repay the Company over a
18 reasonable time period agreed to by the parties, such repayment to include
19 carrying costs at the Company's cost of capital. The proposed conversion
20 surcharge expands the number of consumers, especially those at lower income
21 levels, which would be able to receive the benefits of natural gas service.

22 The company is also proposing to clarify its current Interruptible Best
23 Efforts Sales Service (IBE) rate class to specifically include gas sales to ATS

1 Shippers. The current IBE rate schedule appears to limit IBE sales to consumers.
2 Under the proposed transportation service program, the most likely purchasers of
3 this service would be the ATS Shippers. In addition, the Company proposes to
4 make opportunity sales of its IBE service to any third party for deliveries on or off
5 the distribution system. Such sales would be made at rates, or under conditions,
6 that would benefit the GSR consumers. The Company proposes that all revenues
7 from IBE sales up to the Company's total cost of gas (demand and variable
8 components) would be credited to the GSR. The Company would propose that
9 any profit from IBE sales (where sales revenues exceed the Company's cost of
10 gas including demand and variable costs) would be shared on a 50/50 basis
11 between the Company and the GSR.

12 **Q. IS THE COMPANY PROPOSING TO ELIMINATE THE CURRENT MARGIN**
13 **SHARING MECHANISM?**

14 A. The Company is proposing to restructure the current margin sharing provision. At
15 present the Company shares a portion of the margins it receives from
16 interruptible sales, off-system sales and the release of capacity through its Asset
17 Manager. Under the current tariff, the Company is entitled to retain the first
18 \$800,000 of margins and 20% of all margins in excess of \$800,000. The
19 remaining margins are credited to the firm ratepayers through the Gas Sales
20 Service Rate.

21 The Company is not proposing to share interruptible margins. As
22 described above, the Company's cost study indicted an embedded cost to serve
23 ITS consumers at \$123,840. The Company adjusted the cost allocation to ITS

1 consumers equal to the forecast normalized revenues from the Test Period
2 (approximately \$574,900). The Company's proposed ITS rate design recovers
3 100% of the embedded cost to serve (\$123,840) from monthly Customer
4 Charges. The Company bears the risk for any under-recovery of the adjusted
5 allocated costs assigned to the ITS class that are recovered from variable
6 charges. Given the alternate fuel capability of the ITS consumers, the risks
7 associated with an under-burn of forecast volumes is significantly greater than for
8 firm consumers. That risk is compounded by the "over-allocation" of costs to this
9 class for the purpose of subsidizing smaller volume rate classes. The cost
10 allocation increases ITS rates that, in turn, increase the risk of fuel switching. The
11 Company is willing to absorb the higher level ITS revenue risk, but believes it
12 appropriate that any margins achieved should be retained, within the usual
13 overall earning limits established by the Commission.

14 The Company is transitioning all of its current off-system sales customers
15 out of its Delaware utility operation. No off-system margin revenues are forecast
16 in this filing or anticipated in the future, other than those previously described
17 from IBE sales. As noted above any profits from IBE sales would be shared
18 through the GSR. All (100%) of the capacity release credits associated with the
19 Company's Asset Management agreement are proposed to be credited to the
20 Gas Sales Service Rate (GSR) Clause. In addition, under its proposed
21 transportation service program 100% of the capacity released to ATS Shippers
22 would be credited back to the GSR. The charges to ATS Shippers for Daily
23 Balancing Service and Seasonal Swing Service would also be credited back to

1 the GSR. Any penalties related to unauthorized overruns would be credited to the
2 GSR. Finally, the Company would propose to continue the effective margin
3 sharing embedded in its cost of service revenue forecast for Negotiated Contract
4 Rate consumers.

5 **Q. DID YOU CONSIDER THE COMPANY'S RATE OF RETURN FOR YOUR NEW**
6 **CUSTOMER CLASSES AT PRESENT RATES IN YOUR ANALYSIS?**

7 A. Yes. Prior to designing the Company's final proposed rates I reviewed the rate of
8 return results for each of the existing rate classes and the proposed new rate
9 classes. The returns for the existing rate classes under current revenues in the
10 Test Period are displayed in Attachment JMH-2. The returns for each new
11 proposed customer class at current revenues in the Test Period are displayed in
12 Attachment JMH-4 and summarized in Attachment JMH-7. The returns for each
13 new proposed customer class at proposed revenues in the Test Period are
14 displayed in Attachment JMH-6 and summarized in Attachment JMH-7. It is clear
15 that substantial rate of return disparities exist between classes under the
16 Company's current rate structure. In general, the Company's small volume
17 consumer classes (annual consumption less than 1,000 Ccf), both residential
18 and non-residential, exhibit returns that are well below the overall system return
19 at current revenues. The proposed increased stratification among rate classes
20 has also identified rate of return disparities within the Company's existing classes
21 (as described earlier for residential consumers). In general, small volume
22 consumer classes are well below the system average return. On the other hand,

1 the rates of return for most non-residential classes above 1,000 Ccf per year are
2 well above the system average. The interruptible returns were discussed above.

3 **Q. HOW DID YOU DEVELOP THE PROPOSED RATES?**

4 A. The cost of service analysis provided a reasonable basis upon which to begin the
5 design of rates by customer class. I compared the results of the cost studies to
6 the Company's historic rates and the competitive cost analysis. I considered the
7 Company's objectives to reduce rate subsidization among and within classes and
8 to recover a greater portion of its fixed costs from fixed charges. I was sensitive
9 to the overall percentage increase in revenues per class compared to existing
10 revenues. I also examined the proposed rate impacts for typical consumers in the
11 smaller volume classes and on an individual consumer basis for the GS-7, FTS-7
12 and ITS classes.

13 **Q. PLEASE SUMMARIZE THE CONCLUSIONS YOU HAVE REACHED BASED**
14 **ON YOUR COST ANALYSIS AND RATE DESIGN.**

15 A. The Company's proposed rate design results in each consumer class moving
16 toward a more uniform contribution to costs compared to present rates. The final
17 rates were designed on the basis of cost of service by class, the competitive
18 considerations discussed above and a review of the current structure of rates
19 and classes. The rate design I am proposing on the Company's behalf
20 establishes rates of return for each new customer class that begin to remove
21 some of the historical inequity within and between classes. The final rate design
22 ensures that most volumetric classes generate a positive rate of return, including
23 the proposed small volume residential class (RS-1). The proposed rates of return

1 for each class move closer to the Company's projected weighted cost of capital
2 of 9.68%. Particular attention was paid to the percentage increases in the
3 proposed revenue by class compared to the revenue generated under current
4 rates. The design also attempts to mitigate the risk of fuel switching or negative
5 consumer reaction. The proposed rates also adhere to the long-standing
6 principal of gradualism in rate making. While significant disparities in return
7 between classes continue to exist in the proposed design, the Company is taking
8 another step toward appropriately recovering costs from the parties that cause
9 the cost. Rates of return for each proposed class for the Test Period under the
10 Company's proposed rates are included in Attachment JMH-7.

11 Rates for the RS-1 (0-240 Ccf) residential class were increased to
12 produce a marginally positive rate of return. The RS-1 class at proposed rates
13 would continue to generate revenues well below the revenue requirement
14 identified in the cost of service. The rates for the remaining residential consumer
15 classes generate returns either close to (RS-2) or above (RS-3) the Company's
16 weighted cost of capital. While the non-residential classes, for the most part,
17 remain above the overall proposed return, the proposed rates substantially
18 reduce the current subsidization of residential consumers by the non-residential
19 consumers. The rate design begins to shift toward a SFV structure for all
20 accounts. The proposed rate design produces rates which are in line with
21 customer alternatives and positions the Company to achieve its business
22 objectives. I believe the proposed rate design is just and reasonable, producing
23 fair and equitable rates for each customer class.

1 Q. IS THE COMPANY PROPOSING CHANGES TO ITS MISCELLANEOUS
2 REVENUE CHARGES?

3 A. Yes. The Company is proposing to add a Connection Charge of \$35 for all
4 consumers requesting a service connection. The Connection Charge would be
5 collected from consumers requesting a serviced connection. Under the current
6 tariff, the cost of connecting service is embedded in base rates and paid by all
7 ratepayers. The proposed Connection Charge would appropriately recover the
8 cost from the party causing the cost.

9 A new Seasonal Reconnection Charge is proposed. The Company serves
10 several hundred seasonal consumers who typically disconnect their service
11 during the summer and reconnect it during the winter. The Company stands
12 ready to serve on a year round basis and has made an investment in the service
13 facilities required to deliver gas to the consumer. The Seasonal Reconnection
14 Charge would collect the consumer's applicable rate class Customer Charge for
15 the number of months the service is inactive. If a residential consumer's gas is
16 turned off or the meter disconnected by the Company at the consumer's request
17 and the account placed on inactive status, and such account is reactivated by the
18 same consumer no less than thirty (30) days and no more than one hundred
19 eighty (180) days from the date of the disconnect, a Seasonal Reconnection
20 Charge would be required in addition to the normal service reconnection charge.

21 A Change of Account Charge of \$17 is proposed. If the consumer of
22 record in a premise changes and the Company is able to terminate the existing
23 account and establish a new account without a physical service disconnection a

1 Change of Account Charge would be levied instead of a Connection Charge. The
2 lower charge reflects the reduced cost to the Company when it avoids a physical
3 disconnect.

4 A Failed trip Charge of \$35 is proposed. In the event a consumer fails to
5 keep a scheduled appointment with a Company employee at the consumer's
6 premise to provide a service requested by the consumer, the consumer would
7 pay a Failed Trip Charge. All other miscellaneous charges would remain
8 unchanged.

9 **Q. HOW ARE MISCELLANEOUS CHARGE REVENUES HANDLED IN THE COST**
10 **STUDIES?**

11 A. The Company forecast Miscellaneous Revenue by class based on its existing
12 charges and proposed charges utilizing. When available, historical data was
13 utilized to project the number of annual charges. The cost study includes the cost
14 to provide the various Miscellaneous Charge services in the Total Revenue
15 Requirement. The miscellaneous charge revenues were adjusted out of the
16 proposed revenue requirement by class prior to the development of the proposed
17 base rates.

18 **Q. PLEASE COMPARE THE PROPOSED RATES TO THE PRESENT RATES.**

19 A. A comparison of present and proposed Customer Charge rates, Gas Delivery
20 Charge rates and Demand Charge rates by customer class is presented in
21 Attachment No. JMH-9.

Revenue Normalization Mechanism

Q. PLEASE DESCRIBE THE COMPANY'S PROPOSED REVENUE NORMALIZATION MECHANISM.

A. The Company is proposing to adopt a revenue normalization mechanism similar to the mechanism Chesapeake currently has in place in its Maryland Division. The proposed Delaware mechanism would "decouple" the recovery of the Commission-approved revenue requirement for a given rate class from the variable gas usage of the consumers in the class. In a rate proceeding such as this one, a revenue requirement for each rate class would be determined. The approved revenue requirement by class would reflect revenues generated by a forecast level of consumers, at assumed gas usage levels. The Company's forecast includes estimated usage levels under conditions of normal weather. Once the Commission has approved the Company's annual average revenue requirement by class, equivalent normalized monthly base revenues per consumer can be determined. A monthly base revenue amount per Consumer would be calculated based on the proportional difference in monthly revenue compared to total revenue from the applicable rate classes in the Test Period, as approved by the Commission. Any difference (either positive or negative) between the actual Gas Delivery Service revenue received in a month per consumer and the normalized monthly base revenue requirement per consumer would be multiplied by the number of active consumers in such month. The resulting amount (positive or negative) would be accrued by the Company each month. At the beginning of each calendar quarter the Gas Delivery Service rate

1 in each applicable Rate Schedule would be increased or decreased by an
2 amount calculated to recover or refund shortfalls or surpluses in the Company's
3 approved normalized revenue requirement from the prior quarter.

4 **Q. IS THE COMPANY PROPOSING TO APPLY THE REVENUE**
5 **NORMALIZATION MECHANISM TO ALL RATE CLASSES?**

6 A. No. The Company would not apply the normalization mechanism to the GS-7,
7 FTS-7 or ITS rate classes. The Company's rate design for these large volume
8 classes (>100,000 Ccf per year) include a Demand Charge which would increase
9 the recovery of fixed costs through a fixed charge. The Company proposes that
10 all RS classes, the GS-1 through GS-6 classes and the FTS-1 through FTS-6
11 classes only would be subject to the revenue normalization billing adjustment.

12 **Q. WHAT FACTORS ARE INFLUENCING THE COMPANY TO PROPOSE**
13 **DECOUPLING ITS REVENUE RECOVERY FROM ACTUAL GAS USAGE?**

14 A. Over the past twenty-five years, the natural gas industry in the United States has
15 experienced a significant growth in customers and a concurrent significant
16 reduction in gas consumed per customer, especially in the residential market.
17 According to an American Gas Association (AGA) study, today's average
18 American home uses 25% less natural gas than in 1980. The Company's
19 experience in its Delaware system is similar to the national trend. The Company
20 is recording steady declines in usage per consumer, especially among mid-
21 volume commercial and residential consumers. These reductions in usage are
22 the result of several factors. Increases in the efficiency of appliances and
23 improvements in building construction standards have been key contributors. In

1 addition, the general increase and volatility in fuel prices in this decade has given
2 consumers incentive to reduce their energy use. Information compiled by AGA
3 indicates that homeowner conservation efforts have accelerated. Over the past
4 five years, homeowners have reduced gas consumption even more than the 1%
5 per year trend experienced over the previous twenty years. Similar trends have
6 been seen in non-residential markets.

7 **Q. IT WOULD APPEAR THAT INCREASED ENERGY CONSERVATION BY**
8 **CONSUMERS IS GOOD FOR THE CONSUMER AND A POSITIVE STEP FOR**
9 **THE COUNTRY. WHY IS THAT A CONCERN FOR THE COMPANY?**

10 A. The answer to the previous question presents a credible and quantifiable
11 example of sustained energy reduction through consumer conservation and
12 demand-side management efforts. Improving the physical energy efficiency of
13 buildings and conserving energy through changes in the habits of the building
14 occupants benefit consumers through lower bills, and offers measurable
15 environmental benefits. Given the current global energy situation, and the
16 country's dependence on foreign energy imports, it would appear that an
17 accelerated conservation effort would be in the interest of all parties. However,
18 under the traditional LDC rate designs in effect for virtually all gas companies,
19 including the Company's Delaware division, in which the recovery of operating
20 costs are directly tied to the amount of gas used by consumers, the LDC can be
21 significantly disadvantaged.

22 As noted in the rate design section of my testimony, virtually all costs
23 associated with operating a gas utility are fixed, that is the costs do not change

1 as the volume of gas used by consumers goes up or down. The Company
2 recovers its costs, including a return on its investments, by charging for the
3 "delivery" of gas over its pipeline distribution system. The only significant variable
4 cost for the Company is its gas supply commodity cost. That cost is passed
5 through to consumers through the existing GSR mechanism with no mark-up by
6 the Company. Notwithstanding the current rate design for sales to interruptible
7 consumers, which the Company is proposing to change, gas supply commodity
8 revenues do not contribute to the recovery of the Company's fixed operating
9 costs. As consumers continue to migrate to transportation service and purchase
10 their gas from third party suppliers, the Company's "variable" costs will continue
11 to decline.

12 Under traditional rate design practice, the annual cost to provide delivery
13 service to consumers is divided into the estimated volume of gas for each
14 customer class forecast to be delivered in the same year. If the Company
15 delivers more or less gas than forecast, it will (other factors being equal) either
16 over-recover or under-recover its projected costs. In the event consumers use
17 less gas than forecast due to conservation, the LDCs profits suffer, since the
18 recovery of fixed costs through variable rates is reduced proportionately to the
19 reduction in consumption. The conservation efforts of consumers prevent the
20 LDC from recovering its authorized costs and earning its allowed return. Under
21 such a rate design, energy efficiency and conservation by consumers, while good
22 for the consumer and society as a whole, are not compatible with the Company's
23 shareholder interests. Decoupling mechanisms break the link between revenue

1 and consumer consumption, and help re-position the LDC to take an active role
2 in the support of conservation efforts without negatively impacting its returns.

3 **Q. ARE THERE DECOUPLING MECHANISMS OR OTHER RATE DESIGN**
4 **APPROACHES THAT ACCOMPLISH THE SAME OBJECTIVE AS A**
5 **REVENUE NORMALIZATION MECHANISM?**

6 A. Over the past several years, several utility regulatory commissions have been
7 increasingly receptive to exploring rate designs and cost recovery mechanisms
8 that move away from the recovery of fixed system operating costs from
9 volumetric rates. Various LDCs have implemented, for example, greater relative
10 increases in fixed monthly Customer Charge rates than in volumetric rates,
11 instituted fixed rate demand charges and allocated costs on a fixed basis to third
12 party gas marketers. The declining rate blocks in the Company's current tariff are
13 an example of a rate design that mitigates, to some extent, the effects of reduced
14 consumption on revenue recovery. Around the country, LDCs, with regulatory
15 approval, have implemented rate designs or recovery mechanisms that further
16 break, or decouple, the link between fixed cost recovery and the quantity of gas
17 delivered to consumers. Among these are:

- 18 • Straight-Fixed Variable (SFV) Rate Design: Used extensively by FERC for
19 interstate pipeline rate design, SFV rates recover the predominant fixed
20 costs through fixed reservation or demand charges and the lesser variable
21 costs, if any, through a volumetric charge. LDCs in Georgia, North Dakota
22 and Oklahoma current operate under a SFV-type rate design.

- 1 • Fixed Delivery Service Charge: All costs are recovered from a fixed
2 monthly charge. Atmos Energy's Missouri division recently implemented a
3 fixed charge mechanism for certain small volume rate classes.
- 4 • Weather Normalization Mechanism (WNM): A tracking mechanism where
5 actual delivered gas volumes are adjusted to weather-normalized volumes
6 (usually as approved in the last rate case) and revenues are adjusted by
7 applying existing margin rates to the adjusted volume. LDCs in numerous
8 states have implemented weather normalization mechanisms.
- 9 • Revenue Normalization Mechanism (RNM): A tracking mechanism where
10 actual revenues are adjusted for a given period to account for over or
11 under recovery of the weather normalized revenues approved by rate
12 class in a rate proceeding. Revenue adjustments can be made based on
13 changes in the average use per customer or on variations in the forecast
14 margins per customer compared to base case margins, usually by
15 customer class. The RNM accounts for factors other than weather, such
16 as conservation, economic factors, etc. As noted above, the Company has
17 such a mechanism in place in its Maryland Division for residential and
18 small volume commercial consumers. Baltimore Gas and Electric and
19 Washington Gas Light are other LDCs in the region that have
20 implemented RNM programs in Maryland. Additionally, the states of
21 Washington, Oregon, California, Utah, Missouri, Indianan, Ohio and North
22 Carolina have adopted some form of revenue decoupling.

- Rate Stabilization Mechanism (RSM): A tracking mechanism that enables a utility to adjust rates, without a full rate case filing, in the event an approved earnings target is not achieved (or is exceeded). Rate stabilization mechanisms are currently in place for LDCs operating in South Carolina, Alabama, Mississippi, Louisiana, Oklahoma and Texas.

Q. HOW WIDESPREAD IS REVENUE DECOUPLING AMONG U.S. GAS UTILITIES?

A. At present, according to the April 2007 AGA Rate Round-up publication, seventeen (17) LDCs in ten (10) states have implemented some form of revenue decoupling or revenue normalization mechanism and ten (10) additional states, plus the District of Columbia, have programs pending before regulatory commissions, including the Delaware Commission. In addition, utilities in six states have approved Rate Stabilization Programs in place. While the interest in revenue decoupling among utilities, conservation and environmental groups and regulators has been at a high level over the past few years, revenue decoupling is not a new concept. In California, for example, decoupling mechanisms have been in place for over thirty (30) years.

Q. WHY HAS THE COMPANY PROPOSED A REVENUE NORMALIZATION MECHANISM AND NOT ONE OF THE OTHER MECHANISMS LISTED ABOVE?

A. Regardless of the methodological process adopted, revenue decoupling seeks to ensure the recovery of a LDCs fixed costs regardless of weather conditions or conservation actions. The SFV and fixed delivery charge methods obviously

1 reduce or eliminate the level of cost recovery dependent on variable rate
2 components. The adjustment mechanisms, in one form or another, adjust the
3 actual delivered gas volumes to match the weather-normalized gas volumes
4 used to forecast revenues in the LDCs most recent rate proceeding. When there
5 is a deviation in the forecast volume, the mechanism adjusts the delivery charge.

6 The Company has proposed a Revenue Normalization Mechanism
7 primarily because it is a simple, straight-forward and easily administered process.
8 The weather normalization calculations are performed during the rate proceeding
9 and are not necessary for each adjustment of revenue. The procedure is readily
10 understood by the Company's consumer service employees and is relatively
11 easy to explain to consumers, as opposed to the WNM or RSM process. The
12 RNM proposed by the Company would adjust revenues on a quarterly basis. It
13 would have the effect of "smoothing out" a consumer bill, so the peaks and
14 valleys associated with weather related variable rate delivery charges is
15 mitigated. The RNM does not require a significant departure from the rate design
16 or regulatory review process that has been in place for decades, and the basic
17 mechanics of rate making remain unchanged. Finally, the Company opted to
18 propose a RNM because it has such a mechanism in place in its Maryland
19 Division. The administrative procedures in Delaware would be virtually identical
20 those already developed for Maryland. The primary Customer Information
21 System modifications have already been accomplished and the consumer
22 service employees are trained on the procedures.

23 Q. **HAS THE MARYLAND RNM BEEN SUCCESSFUL?**

1 A. The Company's Maryland RNM program went into effect in October 2006. To
2 date, including the past winter months through March, the Company's rate
3 adjustments resulted in a small additional net charge to consumers
4 (approximately \$25,000). Although it is too early to empirically judge the results
5 of the Chesapeake program, there are indications that the eight-year old
6 Baltimore Gas and Electric (BGE) revenue decoupling program is working as
7 intended. The April 2007 edition of *Public Utilities Fortnightly* includes an article
8 on natural gas revenue decoupling by Ken Costello, Senior Institute Economist at
9 the National Regulatory Research Institute at the Ohio State University. In the
10 article, Mr. Costello, reports on conversations with staff at the Maryland Public
11 Service Commission who indicate that the BGE program (Rider 8) has, "(1)
12 produced more stable and predictable revenues for the utility between rate cases
13 by accounting for revenue "attrition" from declining gas use per customer; (2)
14 reduced the volatility of gas bills, especially under cold weather conditions; and
15 (3) allowed for the continuation of current rate designs that provide an incentive
16 for consumers to conserve and are non-discriminatory to low-usage customers."
17 The article goes on to indicate that Maryland Commission staff noted that the
18 BGE mechanism is "...easy for the utility to administer and the Commission to
19 monitor." and that "...the mechanism has fulfilled more regulatory objectives with
20 fewer shortcomings than other alternatives." One would expect similar results
21 from the RNM implemented in Chesapeake's Maryland Division.

1 Q. YOU INDICATED THAT THE RNM PROPOSED FOR DELAWARE WOULD BE
2 "VIRTUALLY" IDENTICAL TO THE RNM CURRENTLY IN PLACE IN
3 MARYLAND. HOW WOULD THEY DIFFER?

4 A. The Maryland RNM adjusts consumer rates (increases or decreases) through an
5 adjustment in the Company's purchased gas cost rate. The rate classes in
6 Maryland to which the RNM applies (residential and small commercial) are not
7 eligible for transportation service, therefore adjusting the purchase gas cost to
8 these consumers would fairly distribute the rate adjustment to the all affected
9 consumers. In Delaware, however, the Company is proposing to expand its
10 transportation service program to all non-residential consumers. To ensure that
11 the RNM credits or charges apply to both sales service and transportation
12 service consumers in the applicable rate classes, the Company is proposing a
13 billing adjustment for each respective rate class. A RNM rider rate schedule is
14 proposed. The consumer's Gas Delivery Service charge would be adjusted to
15 reflect the credit or charge determined under the RNM.

16 Q. THE COMPANY HAS ALSO PROPOSED A RATE DESIGN THAT MOVES
17 TOWARD ADOPTING SFV PRINCIPALS THROUGH INCREASED
18 CUSTOMER CHARGES AND A NEW DEMAND CHARGE. IS THE RATE
19 DESIGN IN CONFLICT WITH THE PROPOSED RNM?

20 A. No. Optimally, from the Company perspective, it would recover all fixed costs
21 from fixed charges. However, there is a general concern among some parties
22 that fixed charge rate designs fail to send an appropriate price signal to small
23 volume (primarily residential) consumers. The absence of such price signal, it is

1 argued, removes an incentive for consumers to engage in conservation actions.
2 In my view this position is unwarranted since the fuel cost typically represents the
3 majority of the total consumer's bill. In most cases, fuel costs would continue to
4 be billed volumetrically and would send a significant price signal. Nonetheless, in
5 this filing the Company is proposing to take a relatively small, measured step
6 toward SFV rates through an increase in its Customer Charges and the proposed
7 Demand Charge for large volume consumers. Under the proposed rate design
8 the Company would recover approximately 45% of its fixed costs from the fixed
9 charges at the increased Customer and Demand Charge levels. The RNM would
10 fill the cost recovery gap, at least for firm service rate classes. The move toward
11 SFV rate design through the incremental increase of fixed charge rate
12 components (while limiting the increase of the variable component) reduces the
13 amount of adjustment required under a RNM. The perception of consumers is an
14 important consideration in any rate design. The Company believes that its rate
15 design and proposed RNM offer benefits to all stakeholders. Of particular
16 importance, the RNM would enable the Company to be an active supporter of
17 consumer conservation efforts.

18
19
20 **Energy Conservation Plan**
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23 **Q. IN THE ABOVE DISCUSSION, YOU APPEAR TO LINK REVENUE**
24 **DECOUPLING TO EXPANDED EFFORTS ON THE PART OF LDCS TO**
25 **SUPPORT CONSUMER ENERGY CONSERVATION EFFORTS. WHY?**

1 A. Reducing energy consumption in Delaware through conservation and demand
2 side management initiatives should be a key component in meeting the state's
3 projected energy requirements. In a growing state like Delaware, conservation
4 efforts alone will not be sufficient to meet projected energy needs, but developing
5 and implementing a more aggressive and comprehensive conservation strategy
6 could, and should, play an important role in mitigating the rate of forecast energy
7 growth.

8 There are two primary reasons the Company has linked revenue
9 decoupling to the support of consumer energy conservation programs. First,
10 Company's that fail to understand and meet the expectations of their consumers
11 are generally unsuccessful. It is clear from the AGA statistics described above,
12 as well as the Company's experience with its own consumers, that homeowners
13 and business owners are concerned about energy costs and are actively
14 searching for methods to conserve. If the Company can decouple its revenues
15 from sales volumes, it would be able to actively encourage and support actions
16 that could have a meaningful impact on energy use and a consumer's bill. Over
17 the long-term the Company believes that its ability to retain consumers and grow
18 its business will be based, in large part, on its efforts to help consumers use
19 natural gas in the most efficient way possible.

20 Second, there appears to be significant interest among numerous
21 interested parties to directly associate revenue decoupling and other innovative
22 rate designs with energy conservation. Several national environmental and
23 energy efficiency groups have recognized that traditional rate designs are

1 disincentives for gas and electric utilities to support energy conservation efforts.
2 For example, the Natural Resources Defense Council and the American Council
3 for an Energy-Efficient Economy have issued several statements supportive of
4 decoupling as means to enlist the LDCs support of conservation efforts. After
5 several years of concern over declining gas usage, the financial community has
6 also expressed an interest in revenue decoupling as a way of aligning regulatory
7 and consumer interests with those of the LDC.

8 Most significantly, a number of state regulatory commissions have
9 approved decoupling mechanisms with the stipulation that an LDC develop and
10 promote substantive energy conservation programs. It would appear that linking
11 revenue decoupling and energy conservation is a concept that has broad support
12 across the country. The National Association of Regulatory Utility Commissioners
13 (NARUC) adopted a resolution on *Energy Efficiency and Innovative Rate Design*
14 in November 2005. In its resolution NARUC concluded that, "Current forms of
15 rate design may tend to create a misalignment between the interests of natural
16 gas utilities and their customers." NARUC went on to, "...encourage State
17 commissions and other policy makers to review the rate designs they have
18 previously approved to determine whether they should be reconsidered in order
19 to implement innovative rate designs that will encourage energy conservation
20 and energy efficiency..."

21 In April, 2007, U.S. Senators Jeff Bingaman and Pete Domenici
22 introduced S.B. 1115. The proposed bill is primarily focused on establishing
23 standards for appliance efficiency, energy use in government buildings and

1 reducing gasoline usage in the transportation sector. However, as an example of
2 the increasing trend among lawmakers, environmentalists and state regulators to
3 link conservation efforts and utility rate-structures, the proposed bill includes
4 language urging state utility regulators to consider, "separating fixed-cost
5 revenue recovery from the volume of transportation or sales service provided to
6 the customer" and "adopting energy-efficiency as one of the goals of retail rate
7 design".

8 From the state of Delaware's perspective, it would appear that the
9 Company's proposed conservation programs would also be a good fit with the
10 conceptual structure for a Sustainable Energy Utility (SEU) as included in the
11 recent report to the Delaware Legislature from the Sustainable Energy Utility
12 Task Force. The report emphasizes the need to improve building energy use and
13 promote customer-site renewable energy. One of the stated objectives of the
14 SEU is to ... "use incentives to eliminate the cost-difference between Energy Star
15 and conventional appliances." The Proposed Delaware SEU Framework, as
16 depicted in Figure 4.1 of the report, would include utilities as an integral part of
17 the SEU's operations and implementation functions. In general, utilities, including
18 the Company, have long-established and well developed relationships with
19 developers constructing new residences and commercial properties, retail
20 appliance dealers and contractors. As noted in the SEU report, education and
21 outreach efforts and incentive programs are among the implementation functions
22 that could be provided by utilities. In the Company's view, one of the most
23 expedient and cost effective means of achieving increased energy efficiency in

1 new buildings is through implementation of utility incentive and consumer
2 education programs. The types of programs delivered effectively by a utility,
3 through its leveraged relationships and service nexus with the new building
4 construction market, are appliance rebates, home energy rating programs,
5 appliance dealer incentives and educational programs for the building industry.
6 To the extent the Company is not financially harmed by the revenue loss
7 resulting from such programs, it would be a strong supporter of the SEU concept
8 for improving energy efficiency in Delaware.

9 **Q. WHAT ARE THE ENERGY CONSERVATION PROGRAMS THE COMPANY IS**
10 **PROPOSING TO IMPLEMENT AS PART OF ITS REVENUE DECOUPLING**
11 **PROPOSAL?**

12 **A.** The Company is proposing to initially adopt four energy conservation programs
13 aimed primarily at the residential home market. Subsequent to the
14 implementation of its residential programs, the Company would propose to work
15 with the Delaware Energy Office (or SEU if it is operational at that time) to
16 develop conservation programs targeted to the commercial and industrial
17 markets.

- 18 1. The Company would become a sponsor of the ENERGY STAR program,
19 a joint US Department of Environmental Protection and US Department of
20 Energy initiative. As an ENERGY STAR partner, the Company would
21 actively promote the ENERGY STAR brand and the high efficiency
22 appliances and construction products rated by the DOE through its
23 advertising and contacts with appliance dealers, contractors and builders.

1 The Company would also develop and promote an energy efficient
2 residential new construction based on ENERGY STAR building standards.

3 2. The Company would implement a Residential Appliance Replacement
4 Program to encourage homeowners in existing residences to replace and
5 upgrade existing Gas appliances with new high efficiency Gas appliances.
6 The Company would provide cash allowances to homeowners in the
7 following amounts:

<u>Eligible Appliances</u>	<u>Allowance Amounts</u>
Gas Whole-House Heating	\$450
Gas Water Heating	\$350
Gas Cooking	\$100
Gas Clothes Drying	\$100

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19 3. The Company would implement a Residential New Construction Program
20 to encourage homebuilders to install highly efficient gas appliances. If the
21 energy efficiency level of new residential construction can be improved at
22 the outset, it will reduce the need to upgrade standard builder model
23 appliances and construction products at a later date.

<u>Eligible Appliances</u>	<u>Allowance Amounts</u>
Gas Whole-House Heating	\$400
Gas Water Heating	\$300
Gas Cooking	\$100
Gas Clothes Drying	\$100

1 Under both the appliance replacement and new construction programs all
2 Gas whole-house heating systems must meet or exceed an Annual Fuel
3 Utilization Efficiency rating of .90 AFUE. All Gas water heating systems
4 must meet or exceed a minimum Energy Factor rating of .80 EF. All Gas
5 cooking and clothes drying appliances must have pilotless ignition. Any
6 whole-house heating system and water heating system receiving an
7 allowance under the program must demonstrate compliance with the
8 applicable efficiency standards described above as rated under the U.S.
9 Department of Energy's Uniform Test Method for Measuring the Energy
10 Consumption of Water Heaters, Appendix E and Furnaces, Appendix N, to
11 Subpart B of 10 CFR Part 430, Energy and Water Conservation Standards
12 and Effective Dates.

- 13 4. The Company would implement a Consumer Education Program in
14 conjunction with its ENERGY STAR partnership agreement, promote
15 energy efficiency and conservation throughout its service area through
16 communications with Consumers, appliance retailers, contractors,
17 homebuilders, developers and others engaged in the building industry.
18 Such communications may include, but not be limited to, general
19 advertising, bill stuffer's, point of purchase displays, consumer education
20 exhibits, presentations to schools, civic and neighborhood association
21 groups, development of branding programs tied to the ENERGY STAR
22 partnership, and other reasonable means of communicating to consumers.

1 Consumer education and advertising would be related to an approved
2 conservation program or ENERGY STAR initiative.

3 **Q. WHY WERE THE EFFICIENCY RATINGS FOR HEATING SYSTEMS AND**
4 **WATER HEATING SYSTEMS SELECTED?**

5 A. The furnace efficiency minimum rating of .90 AFUE is an ENERGY STAR rating
6 level. A .90 AFUE heating system would most likely be either a condensing
7 furnace, hydronic system using a tankless water heater, or pulse ignition model.
8 The .90 AFUE represents a significant improvement over the existing minimum
9 Federal furnace standard of .78 AFUE. The incremental installed cost for an
10 upgrade to a .90 AFUE furnace in the Company's service area ranges from
11 approximately \$700 to \$1,000 based on a recent survey of contractors. The
12 proposed cash allowance amounts of \$400 (new construction) and \$450
13 (replacement) would, on average pay for approximately 50% of the upgrade in
14 efficiency. The Company estimates that less than 10% of the gas furnaces
15 currently installed in new homes or in the replacement market, in the Company's
16 service area, would meet the .90 AFUE requirement.

17 The .80 EF rating is consistent with the minimum efficiency level required
18 by the national Energy Policy Act of 2005 to qualify for federal tax credits. At
19 present, there are no Energy Star minimum ratings for water heaters. To achieve
20 a .80 EF rating for a residential gas water heater would generally require the
21 installation of an instantaneous tankless unit, or a highly insulated, power vent
22 storage tank unit. The .80 EF represents a significant improvement over the
23 existing minimum Federal furnace standard of .59 EF. The incremental installed

1 cost for an upgrade to a .80 EF water heater in the Company's service area
2 ranges from approximately \$500 to \$900 (with tankless representing the higher
3 amount) based on a recent survey of contractors. The proposed cash allowance
4 amounts of \$300 (new construction) and \$350 (replacement) would, on average
5 pay for approximately 50% of the upgrade in efficiency. The Company estimates
6 that less than 2% of the gas water heaters currently installed in new homes or in
7 the replacement market, in the Company's service area, would meet the .80 EF
8 requirement.

9 **Q. HOW DOES THE COMPANY PROPOSE TO RECOVER THE COST OF ITS**
10 **ENERGY CONSERVATION PROGRAMS?**

11 A. The Company is proposing to establish an Energy Conservation Cost Recovery
12 (ECCR) bill adjustment mechanism. The Company's cost to administer the above
13 Energy Conservation and Consumer Education Programs, including the
14 allowance payments provided under each program, would be recoverable from
15 all consumers receiving Gas Delivery Service under a firm service rate schedule.
16 The Company would propose to establish an annual filing proceeding with the
17 Commission, in a manner similar to the Gas Sales Service Rate proceeding, to
18 determine the ECCR rates for a future annual period. The rates for each
19 applicable rate class would be based on the recovery of projected costs and a
20 true-up of any historical over or under collection of costs. All energy conservation
21 activities, program costs and revenues would be subject to Commission audit.

22 **Q. EARLIER YOU DISCUSSED THE SFV AND RNM AS RATE DESIGNS THAT**
23 **SUPPORT ENERGY CONSERVATION EFFORTS. ARE THERE OTHER**

1 INNOVATIVE RATE DESIGNS THAT COULD ASSIST IN ATTAINING
2 DELAWARE'S ENERGY GOALS, FOR EXAMPLE, THE RENEWABLE
3 ENERGY OBJECTIVES OUTLINED IN THE SUSTAINABLE ENERGY UTILITY
4 REPORT?

5 A. Yes. Chesapeake's Florida Division is currently working with other Florida gas
6 Local Distribution Companies (LDCs) and the Florida Solar Energy Center
7 (FSEC-a state agency) to study the feasibility of installing combination solar and
8 natural gas water heating systems in multi-family residences. Conceptually, the
9 installation would consist of solar water heating equipment with tankless gas
10 water heaters to back-up the production of solar hot water on days where the
11 demand for hot water cannot be met by the solar system. The tankless gas
12 systems are pilotless and would use virtually no energy unless there is a need to
13 supplement the solar hot water production.

14 In the Company's view, the key to gaining widespread and sustained utility
15 support of renewable energy technologies is to allow an LDC to be a for profit
16 participant in the installation and operation of renewable technologies. Under the
17 current regulatory framework in both Delaware and Florida, a LDC would have
18 little motivation to promote a combination solar/gas tankless water heater
19 system. However, if the LDC were able to own, operate, maintain and earn a
20 return on the investment in such a system, in a manner similar to its other gas
21 facility investments, the LDC would likely be inclined to promote such
22 installations. The LDC would charge a Commission approved rate for the delivery
23 of hot water, not gas. A rate design would need to be adopted that enabled the

1 LDC to sell Btu's not Ccf's. Consumers would benefit from no initial first cost and
2 would have the assurance that the LDC would have the obligation to maintain the
3 equipment to provide reliable service. It would be in the LDCs best interest to
4 keep the solar system operational, since the lowest cost Btu's (excluding initial
5 cost amortization) would be produced by the solar equipment. The societal
6 benefits of increased installation of customer-sited renewable energy
7 technologies is described at length in the SEU report.

8 The use of thermal renewable energy technologies deployed at an end-
9 user's location (as opposed to alternative energy distribution technologies, e.g.
10 wind power) has historically, in my view, been hampered by several factors. The
11 available renewable technologies for residential and small commercial solar
12 space heating and water heating, for example, typically have higher initial costs
13 compared to traditional systems. While the life cycle costs for renewable
14 technologies frequently provide positive overall cost benefits, it is difficult for
15 consumers to overcome the higher first cost. Most of the renewable energy
16 (thermal solar) systems require regular levels of maintenance that exceed the
17 level to which most consumers are willing to commit. Finally, the solar industry, in
18 many locations, may not be well supported by local vendors. An opportunity to
19 address these issues, and achieve increased on-site installations of renewable
20 energy technologies may exist with the Delaware SEU concept. The Company
21 believes it could play a meaningful role in the expansion of such technologies.

Proposed Adoption of the Company's 5th Revised Tariff

Q. HAS THE COMPANY REVISED ITS TARIFF CONSISTENT WITH THE RATE DESIGN AND PROGRAM MODIFICATIONS PROPOSED ABOVE?

A. Yes. In conjunction with its base rate filing, the Company is submitting proposed revisions to its tariff. The proposed tariff modifications required to expand the Company's transportation service program and implement the restructured rate design and other services described in my testimony are extensive. In addition, the tariff was generally updated and edited to remove redundant sections and group related rules and regulations in common sections. The Company determined that, given the extent of the proposed modifications, it was not practical to edit the existing tariff. The company is submitting with this rate filing a new 5th revised tariff.

Q. HAS THE COMPANY PREPARED A LEGISLATIVE VERSION OF ITS NEW TARIFF INDICATING THE SPECIFIC PROPOSED REVISIONS?

A. The proposed revisions to the Company's tariff were too extensive to prepare a traditional strike-through and underline legislative format. Based on discussions with Commission staff, the Company has prepared a document, in addition to this testimony, that will guide the Commission through the new tariff. A red-line legislative copy of the current tariff has been prepared depicting sections that have been deleted, modified and/or moved to the new tariff. It should be noted that while the Company is proposing a new tariff version, much of existing language in several sections of the current tariff has been retained. The

1 Company is prepared to work closely with the Commission to identify all
2 substantive revisions to the tariff.

3 **Q. PLEASE BRIEFLY DESCRIBE THE SUBSTANTIVE TARIFF MODIFICATIONS**
4 **PROPOSED IN THIS FILING.**

5 A. In addition to those tariff revisions described previously in this petition
6 (transportation program, rate structure, RNM, energy conservation programs,
7 etc.) the following discussion summarizes the Company's substantive tariff
8 revision proposals (those that establish tariff rules or policies) following the
9 proposed format of the new tariff.

10 **Section 1: General**

11 Section 1.3, Application of Tariff, has been expanded to include tariff application
12 to ATS Shippers. Section 1.5, Statement of Agents, adds a phrase to clarify that
13 a contract between parties may modify tariff requirements, as authorized in the
14 tariff (NCR negotiated rate, for example).

15 **Section 2: Classification of Customers**

16 The new Classification of Customers section identifies the Company's customers
17 as both end-use consumers and the third party gas marketers (ATS Shippers)
18 delivering gas to the distribution system. The definitions of consumer types in the
19 proposed tariff consolidates existing customer classification standards from the
20 Company's current rate schedules that define residential, commercial and
21 industrial customer types into one section. A new consumer classification
22 "Special Purpose Consumer" is established to include any classification types

1 that do not fit the residential, commercial or industrial designations, such as
2 wholesale service to another LDC.

3 **Section 3: Classification of Service**

4 The new Classification of Service section outlines all of the optional and/or
5 mandatory service classes provided by the Company to both consumers and
6 ATS Shippers. This section also references the two primary services, Gas
7 Delivery Service and Gas Sales Service provided to all consumers as defined in
8 the Technical Terms and Abbreviations Section of the proposed tariff. Gas
9 Delivery Service is the local delivery of gas to consumers over the Company's
10 gas distribution facilities. Such service is provided to both General Sales Service
11 and Transportation Service consumers. Gas Sales Service is the retail sales of
12 gas by the Company to consumers.

13 **Section 4: Initiation of Consumer Service**

14 Section 4.3 includes language taken from the existing tariff Curtailment Plan
15 (Section 2) related to withholding service from an applicant for system constraint
16 or supply limitation reasons. Section 4.6 is new language that provides for a
17 Change of Account charge assessed when service is transferred from an existing
18 consumer to a new consumer at the same premise without a physical service
19 interruption. The \$17 charge is less than the \$35 Connection Charge which
20 reflects the costs to shut off the meter and reconnect service at a later date.

21 **Section 7: Creditworthiness and Deposit Requirements**

22 The Company is proposing to establish creditworthiness standards for non-
23 residential consumers based on standard commercial credit evaluation

1 procedures. For smaller volume consumers, in addition to the existing
2 creditworthiness tests, an Experian credit report with an Intelliscore result of 60
3 or better could be used as the determining factor in the collection of a deposit.
4 Creditworthiness for larger volume consumers could be evaluated based on
5 financial or rating agency reports, if available, in a manner typical for consumers
6 of this type.

7 **Section 10: Extension of Facilities Policy**

8 Proposed Section 10.5 modifies the Company's policies related to distribution
9 extensions that fail to meet the Company's criteria for a feasible extension. The
10 Company's current tariff (Section 10.5 Rules and Regulations) already includes
11 an Experimental Area Extension Program (AEP) rate adjustment mechanism
12 whereby the Company's rates may, at its option, be adjusted for consumers
13 within certain geographic boundaries to enable recovery of facility extension
14 costs that exceed the tariff extension criteria. Under the current tariff, the AEP
15 revenue deficiency is calculated by comparing estimated project extension costs
16 to a forecast of revenues from Consumers through use of an Internal Rate of
17 Return Model (IRRM) on file with the Commission. Any revenue shortfall that
18 would otherwise require a Financial Guarantee (Contribution in Aid of
19 Construction, Customer Advance, Letter of credit, etc.) is collected through the
20 AEP mechanism over an Amortization Period not to exceed ten-years, subject to
21 a one-time rate true-up. The current AEP charge is applied on a per Ccf basis to
22 a Consumer's variable rate Gas Delivery Service charge, with an established cap
23 of \$0.20.

1 The Company's proposed modifications to its AEP rules and regulations
2 include the following:

- 3 • The Company would evaluate potential projects using its IRRM to determine
4 a "financial guarantee" amount as provided in the current tariff. Any cost
5 difference between the capital investment allowed under the Company's
6 IRRM and the estimated capital investment costs (such cost difference to
7 include the Company's allowed cost of capital) required to extend the
8 distribution facilities to serve the prospective Consumer(s) would be defined
9 as the "AEP Recovery Amount". The AEP Recovery amount would be divided
10 by the number of active premises projected to be served at the end of five
11 years following the in-service date of an extension. An Amortization Period of
12 no more than ten (10) years would be established, as in the current tariff. In
13 the event a premise becomes inactive, the Amortization Period would be
14 suspended until such time as the premise reactivates service. The AEP
15 Recovery Amount would be divided by the projected premises to determine a
16 per premise total, then divided by the number of months in the Amortization
17 Period to establish a monthly billing rate per premise. The billing rate would
18 be applied as a surcharge to the fixed rate Firm Transportation Service rate
19 each month.
- 20 • At the end of five (5) years following the in-service date of the extension, the
21 Company would true-up the AEP Recovery Amount based on actual capital
22 investment costs and actual revenues through a re-calculation of the IRRM
23 using the actual data. The Recalculated AEP Recovery Amount and

1 Recalculated AEP Charge would be used to determine the amount of any
2 true-up to be billed or credited to Consumers. The Recalculated AEP Charge
3 would be applied to premises activated prior to the end of year five following
4 the in-service date of the extension, throughout the remaining months of the
5 Amortization Period.

- 6 • Any premise that activates service subsequent to five years following the in-
7 service date of the extension would not pay the AEP Charge. The Company
8 would expect that such premises would be self-supporting as to the recovery
9 of the capital investment required to provide service.
- 10 • At present, the AEP charge is applied to Consumers when service is
11 activated anytime during the Amortization Period (up to ten years). The first
12 Consumer activating service would pay the AEP Charge for the full ten-year
13 Amortization Period. A Consumer activating service in year nine would only
14 pay for one year. The first Consumer to activate bears more of the cost
15 burden than the last Consumer to activate. The Company's proposed AEP
16 modifications are more equitable. The AEP Recovery Amount would establish
17 a fixed recovery amount for those premises activating service during the first
18 five years. The full AEP Recovery Amount for a respective premise would be
19 collected over 120 months of active billing. The AEP Recovery Amount would
20 be collected from all Consumers activating service during this period,
21 regardless of their activation date.

22 The Company is also proposing to eliminate the "experimental" designation on
23 the current AEP. The Company recognizes that the rate treatment for facility

1 expansions in its eastern Sussex County service area is at issue in this rate filing.
2 In its proposed tariff the Company has included a Residential Service Eastern
3 Sussex County Expansion Area Rider (rate schedule RSES). The RSES rate
4 schedule establishes a monthly Customer Charge rate designed to help recover
5 the facility expansion costs related to eastern Sussex County. The Company
6 would not propose to apply the AEP in an area in which the RSES rate schedule
7 would be applicable to the residents in a geographic area covered by an AEP.

8 **Section 12: Measurement**

9 Section 12.3 includes the Company's proposal to install, at Company expense,
10 Remote Reading Devices for all consumers using over 100,000 Ccf per year.

11 **Section 13: Billing and Payment**

12 Section 13.10 provides for an Application of Payments similar to that included in
13 the Delmarva Power gas tariff. In addition, the section establishes a payment
14 application hierarchy related to the payments received under the Company's
15 SABS payment agent service. The ATS Shipper's gas costs would be satisfied
16 prior to the regulated utility service charges. This payment hierarchy limits the
17 ability of consumers to provide partial payment of the regulated charges without
18 paying the ATS Shipper's gas charge. The Company would retain the ability to
19 disconnect service for non-payment of its delivery charges. The ATS Shipper
20 would have no such disconnect ability.

21 **Section 15: Curtailment Policy**

1 The proposed unauthorized overrun penalties related to curtailment have been
2 incorporated into this section. The penalty rates have been updated to reflect
3 current market conditions.

4 **Section 16: Force Majeure**

5 A new Force Majeure section is proposed to clarify the obligations of all parties in
6 Force Majeure events.

7 **Section 19: Transportation Service**

8 New section takes the place of the existing Transportation and Balancing rate
9 schedule.

10 **Section 20: Gas Sales Service Rate Clause**

11 New section eliminates existing GSR rate schedule, no substantive change in
12 methodology.

13 **Section 21: Energy Conservation Plan**

14 New section including proposed conservation programs and recovery
15 mechanism.

16 **Section 22: Revenue Normalization Methodology**

17 New section with proposed RNM.

18 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

19 **A. Yes.**

DATED: JUNE 20, 2007

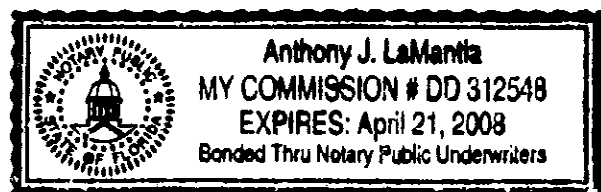
STATE OF FLORIDA)
)
COUNTY OF COLLIER) SS:

AFFIDAVIT OF JEFF HOUSEHOLDER

JEFF HOUSEHOLDER, being first duly sworn according to law, on oath deposes and says that he is the witness whose testimony appears as the "Direct Testimony of Jeff Householder, on behalf of Chesapeake Utilities Corporation, Delaware Division;" that, if asked the questions which appear in the text of the direct testimony, he would give the answers that are therein set forth; and that he adopts this testimony as his sworn direct testimony in these proceedings.


Jeff Householder

Then personally appeared this 20th day of June 2007, the above-named Jeff Householder and acknowledged the foregoing Testimony to be his free act and deed.
Before me,




Notary Public
My Commission Expires: 4/21/08